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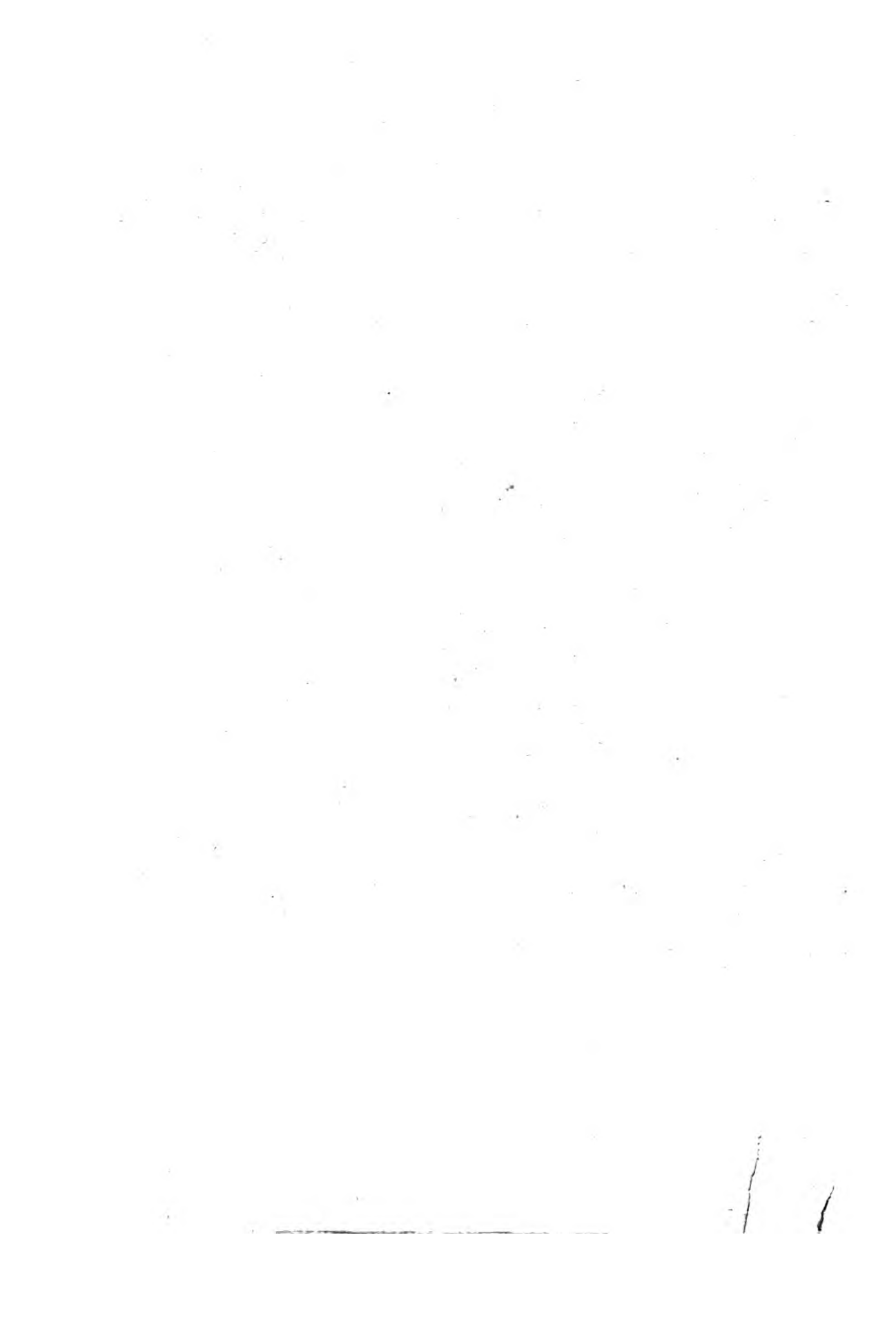
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## PSYCHO-MOTOR HALLUCINATIONS IN GENERAL PARALYSIS.

BY DR. A. MARIE,

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Every psychiatrist is familiar with the important rôle played by hallucinations in the semiology of mental ailments. Seglas defines an hallucination as being a perception without the existence of a corresponding object. Hallucinations are at the basis of every delirium; they are the predominating factors and the capital signs even if not always easy to detect. They may affect all the senses and be auditory, visual, olfactory, gustatory or motor; they may involve the general or special sensibility. The duration and differentiation of the hallucination depend on the tendencies of the patient. Nevertheless, alcohol, for instance, produces preferably hallucinations of sight; cocaine—those of the general sensibility; it would be difficult to say whether various poisons have a special predilection for given functional centres. The mystic theo-maniacs have characteristic visions which are often combined with verbal or graphic automatism (illuminated, inspired, prophetic, etc.). Dr. Vallon and myself have considered this question in the *Arch. de Neurologie*, 1896-97 (pp. 12 to 15). The patients subject to systematized persecution delirium have mostly auditory hallucinations. Lassegue laid special value on this fact, which is rather underrated to-day. The depressive or expansive religious systematized insanities are often noted by early psycho-motor disturbances, particularly in the possessed melancholiac (1) and by tardy psycho-motor troubles in the mystic partial delusional subjects; hence there come ideas of double personality: the patient suffers from ideas of diabolical possession, or else from those of direct divine inspiration (2).

1.) Drs. Marie and Vallon, *Arch. de Neurol.*, 1898, 29-30.

2) Dr. Marie—Mysticisme et folie, *Arch. de Neurologie*, 1899, 40-43.

Recently Tamburini considered hallucinations in the relative light of cortical aphasia and accepted them as functional disturbances of the cortical centres. He says: "Hallucinations are to the alterations of the sensory centres what epileptoid movements are to those of the motor centres." This opinion is accepted by Seglas, and he applied it in his psychological analysis of the psycho-motor phenomena in the systematized delirii.

Hallucinations combine very frequently, and the analysis of them becomes complex when they embrace functions controlled by different centres. This is particularly the case in hallucinations of speech, the latter being the result of long education and synthesis of the functions of superposed centres. The hallucinatory disturbance may affect the motor images of articulation—causing a verbal psycho-motor hallucination, properly speaking; or when the hallucination affects the graphic images there is a graphic psycho-motor hallucination; in the systematized delirium the hallucinatory trouble begins with the simple and reaches the complex: the oldest acquisitions are affected first and the recent ones later—by extension. I have under observation a patient, at present suffering from delirium of persecution, who first showed auditory hallucinations, then reached gradually verbal psycho-motor hallucinations: his persecutors could see his thoughts and made use of them to his disadvantage; the same persons made him talk against his will; recently the *enemies* make him write, and the manuscripts consist of a mixture of his own ideas and those of the *enemies*, the handwriting changing in the latter case, resembling that of the "cerebral violators," as he expresses it.

Seglas, who so well described the graphic verbal psycho-motor hallucination, says that the psychic hallucinations may be considered as being psycho-motor disturbances; he studied particularly the hallucinations of the melancholiacs and of those suffering from delirium of persecution, and does not mention those of the general paralytic.

I cite here three cases of general paralytics with psycho-motor hallucinations, but let me first call attention to these important points: if an hallucination is to the alteration of the sensory centres what the epileptoid movements are to the motor centres, then, indeed, should general paralysis, the lesions of which are diffuse, affecting indiscriminately all the nervous territories, be a fertile field of investigation.

Speaking of hallucinations, Girma says in his thesis, which he wrote under the inspiration of the works of Christian, of Lyons, and Ritti, of Paris (1881): "Hallucinations are very frequent in general paralysis; they may be found during every stage of the



disease, especially during that of dementia. In the first period, the hallucinations may take on a psychic nature; later, after the epileptiform or apoplectiform cerebral congestions (which seem to have much influence on the production of hallucinations), the hallucinations become rather of a psycho-sensory nature, fugacious and varied in the expansive forms; they are often persistent in the depressive forms, during incomplete remissions, and in dementia. They bring about impulsive acts, but it is very rarely that these hallucinations lead the patient to draw from them logical deductions, as do those subject to simple hallucinations."

According to Girma, then, the hallucinations of the general paralytic may be of a psychic nature in the beginning of the malady and become psycho-sensory in the later stages, after the small cerebral hemorrhages have taken place. In his work there are cited three cases which presented psycho-motor hallucinations.

The presence of graphic verbal psycho-motor hallucinations in general paralysis are considered as being of rare occurrence. This may be due to the rapidity of development of the disease which prevents the hallucinations from reaching a distinct degree of differentiation, and, on the other hand, to the demential condition into which the patient soon falls and during which it is most difficult to bring to light the presence of verbal psycho-motor hallucinations. Finally, a prolonged period of excitement hinders the investigation; the melancholiacs and the persecuted, however, come of their own accord to recount their trouble to the physician.

The best periods that favor the detection of these psycho-motor hallucinations in general paralysis are: at the culmination of the phase of initial functional dynamia, in the beginning or the end of the period of relative calm of the disease and during the more or less complete remissions.

I wish to remark that in the general paralytic the psycho-motor hallucination does not, generally, reach the stage of double personality; the evolution of the disease is too rapid and the mental faculties are too much affected for that purpose.

I make mention below of the exceptionally rare cases collected by various authors who treat of the subject I am considering in this paper: Baillarger quoted Esquirol's case and published it in the "Annales Medico-Psychologiques" (1881). He treats of a general paralytic who suffered from multiple hallucinations and who was possessed by two demons. Dr. Sérieux, in "Archives de Neurologie" (1894), says in reference to the same hallucinations: "Mendel makes mention in his book (1880) of a case of general paralysis, the diagnosis of which was confirmed by an autopsy, who had obsessions during the course of a melancholic and hypo-

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chondriacal spell. The patient was possessed with Latin maxims and complained of the inability to stop pronouncing them; the same complaint was made in reference to some song refrains: 'These voices are as if they came from the tongue,' the patient said. Mendel adds that there was no trace of hallucinations;" Dr. Sérieux thinks that the case was one of onomatomania complicated with psycho-motor hallucinations.

Dr. Sérieux has published a case from his own wards of a patient who suffered from general paralysis with verbal psycho-motor hallucinations. (3) The résumé of the case is: "Somatic and psychic signs of general paralysis; a spell of transitory melancholia; a spell of mania with expansive ideas and delusions of persecution; confinement to the asylum; persistent and active ideas of persecution caused by hallucinations of hearing, during three months; remission of a severe nature; painful verbal motor hallucinations; absence of other hallucinatory disturbances and particularly of auditory hallucinations; permanence and activity of the verbal motor hallucinations during a period of over a year; their intimate association with a condition of erethism of the centres of mastication; the verbal motor hallucination accompanied by involuntary movements of mastication or by grinding of the teeth; these disturbances play an important part in the genesis of the ideas of persecution which have a tendency to systematization; interpretations and characteristic reactions; secondary episodic spell of a melancholy nature (auto-accusation, ideas of suicide); spell of maniacal excitement with ideas of grandeur and of persecution, multiple verbal motor hallucination; kinesthetic, visual, auditory and gustatory; condition of hallucinatory confusion; pneumonia—death. Autopsy: Interstitial encephalitis with meningeal adhesions localized systematically in both hemispheres at the inferior extremity of the Rolandic convolutions. at the third and internal frontal."

In conclusion Dr. Sérieux brings to special notice: "The existence of verbal motor hallucinations in general paralysis; their intimate connection with the convulsions of the muscles of mastication; their appearance during the course of a remission as isolated symptoms, unassociated with any other hallucinatory disturbances; their prolonged duration of sixteen months; their repeated reappearance; their rôle in the genesis of ideas of persecution with a tendency to systematization during the course of a remission. Autopsy: Lesions of the meninges, interstitial encephalitis at the foot of the third frontal (verbal motor centre) and

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3.) Dr. Sérieux, *Archives de Neurologie*, 1894.



the lower extremity of the ascending frontal (centre of mastication)."

Dr. Maurice Rieu, in a recent thesis, 1900, brings out the fact that verbal motor hallucinations are extremely rare in general paralysis; that clinically these hallucinations are of the same nature when occurring in any other disease and influence the patient's delirium and may be accompanied by sensory hallucinations, auditory or sensory.

Some authors wish to explain the reason of the psycho-motor hallucinations during the course of parenchymatous encephalitis by the predominance of pathological alterations in the psycho-motor centres: the verbal sensorio-motor and those of mastication (interpretation by Sérieux\* and Marinesco); this explanation is based on the usual anatomical lesions present in general paralysis. Unfortunately, this theory stands in contradiction to the facts observed in the ordinary insane who also happen to suffer from psycho-motor hallucinations: in these cases there are not found any anatomo-pathological cortical lesions, especially of the centres alluded to above; on the other hand, there is absence of psycho-motor hallucinations in some cases with microscopic lesions of the verbal psycho-motor centres in the majority of cases of general paralytics; in an overwhelming majority of the latter cases, the lesions are well defined and well generalized.

Prof. Joffroy (4) applies a general theory of the phenomena of hallucinations in order to give a plausible explanation of facts. He says: "It is not sufficient to activate a sensory centre by a lesion in order to produce hallucinations; that centre must be specially modified first: it must be originally or by acquired qualities predisposed in order to have this abnormal disposition which renders it hallucinogenous; for this reason there are no specific lesions productive of hallucinations."

The period of evolution of general paralysis during which the motor hallucinations manifest themselves justifies this hypothesis. It seems that the central neurons disintegrate and that the psycho-motor disturbances result from that as expressed by the delirious paraphrase.

We will now proceed to examine the cases which serve as clinical demonstrations of the principles above argued.

Case I.—L. H., 35 years old, entered the Villejuif Asylum July 17, 1900, from the St. Antoine Hospital. Dr. Londe, who made out his certificate, mentioned the existence of general paralysis. The patient was then sent to the Admission Bureau at Ste. Anne,

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4.) Prof. Joffroy in thesis, Dr. Rieu.

from where he came into my wards with a certificate which stated that he suffered from general paralysis, ideas of grandeur, incoherence of ideas, hesitancy of speech and unequal pupils.

The patient's father is in good health; the mother died at the age of 50; she was an inmate of insane asylums twice and was, perhaps, a general paralytic. She became extravagant in expenditures during her illness, and a number of wardrobes were found filled with extravagantly expensive things which were of no practical use; besides, she owed 50,000 francs for dressmaking. She had thus wasted three million francs within a period of three years, during which time she was separated from her husband. An uncle died of general paralysis. A brother, 23 years old, is eccentric and a spendthrift; he was confined in prison six months for an attempt to steal from his father.

The patient had syphilis when 16 years of age. He has led an extravagant life. He could speak many languages when quite young and was accepted at the naval school, in 1881, but soon left this school, taking an examination at the polytechnic school, where he failed. He then entered into service of the marine infantry. After having served in Algiers and Tonkin, where he was wounded in the head, he returned to France and passed successfully the examinations in law; after this he wandered about all over Europe, lived in Sofia three years, and finally married in 1895. Two children were born, one being now three years and the other fifteen months old. Shortly after marriage he had three epileptiform attacks which followed closely, one after the other. He is an excessive worker, and an excessive tobacco smoker, but does not indulge in alcoholic drinks. Since the onset of the attacks he has been subject to tic of the lower jaw. The wandering life which he led exhausted a large fortune he possessed, and as his poverty interfered with his keeping in his own social circle he became despondent. In 1899 he was obliged to become a clerk in order to earn a livelihood. He separated from his wife on amicable terms, as he could not support her. At that period his intellectual faculties were already weakened and the simple work of a clerk's duty became a heavy mental strain. Moreover, he felt that his intellect was giving way and in despair, wrote to his wife, saying that he saw before him an abyss into which he was gradually falling. Soon after this the radical change in his faculties came to the surface: he began to sell his belongings, indiscriminately—jewels, furniture, etc., and soon became most satisfied with himself and his surroundings. In 1900 a spell of delirium took place: he was excited, had expensive ideas and was very rich; this mental excitement was accompanied by insomnia. At that time he showed

all the signs of general paralysis: the pupils were unequal and did not react to light, there was clipping of words, there was fibrillary tremor of the tongue; there was marked mimic dissociation with a slight left facial paresis; tremor of the extremities, exaggeration of the patellar reflexes and instability while trying to stand upright. His ideas were incoherent and mobile, the memory much diminished; the memory disturbance was manifest in his writing, as he left out words, and the muscular incoördination was seen in the tracing of the letters. In August the excitement still persisted, although to a lesser degree; the patient now suffered from negative ideas: he has no brains—they were taken out and not replaced; his heart was also taken out, so were the blood, the viscera and the genital organs; the organs which he had at that moment were not his.

The following is a letter, literally transcribed, which he wrote:

"Mon cher Docteur—Je ne sais pas comment se fait que je sois la langue les dents, les bras, le coeur et l'estomac tout mon être dans toi. Je suis profondément en toi, mon Bob cheri. Je ne comprends ce qui m'arrive, mais je ne sais qui leinte; en somme je ne souffre pas et je sais que nous nous adorons, depuis plus de 4 ans que tu ne m'as jamais trompé, ni moi, non plus, je te jure, tu le sais maintenant, tu reste je ne sais pas pourquoi: je sais que un homme qui s'appelait le Dr. Marie to resoit que ta femma et te retenant toutes les lettres et cependant je t'écrivais presque tous les cinq jours et jamais tu ne me reponds parce que étais dans.

Lors, amené à l'hôpital, je suis en toi, tu pleures de douleur et je suis terriblement étonné . . . et que tu es désespéré d'avoir dans le corps ta Suzanne chérie, ton pigeon rose, ta chérie, tu chantais Suzanne magnificature et jolie en anglais et il parait je pense qu'on fera une consécration et je l'espère; nous serons deux différents et je civis qu'il le pense; tu sais nous pensons parce qu'il chose de magique dans cette affaire. Enfin mon chérie demande la permission de l'habiller . . . et qui ne te demande rien tu es l'homme. Enfin dis au docteur qu'il y a probablement quelque chose d'olsur et extraordinaire: dans ce qui nous arrive. Au fond tu sais monlobaimé que au fond on peut nous faire deux êtres de ton corps, nous fuirons Paris et nous irons en Algérie et faire encore de bonnes affaires entends."

Regardless of the incoherence in the letter it is evident that the patient speaks of himself in the third person, that there is some person, a woman, inside of him, with whom he holds conversations and who replies to him. On being questioned on this subject he says that there are two women within his chest, staying there continually, talking all the while. He takes part in their



talks, and they tell him pleasant things which are at times of an erotic nature. Often these women borrow his voice and speak through his mouth—it is not he, then, who speaks.

He wrote two more letters in which his dual personality preoccupied him; he became excited and violent; this condition continued for some time; he raved, tearing and breaking things about him; all means used failed to calm him. He passed September, October and November in this condition of mental excitement, the physical condition failing rapidly and progressively; in the beginning of December he took to bed, and when his relatives called to see him he said: "L. himself is not in" (L. is the patient's initial letter), and he kept on speaking of himself in the third person. He was very feeble then; the mental excitement was intense; he mumbled continually and hung his head over his chest as if listening to the voices there. He died December 25, of broncho-pneumonia, while he was in a condition of extreme cachexia of general paralysis.

No autopsy was allowed by his relatives.

Case II.—G., 47 years old, entered the Villejuif Asylum August 1, accompanied by a certificate which stated that he had general paralysis in its first stage, that he was probably given to alcoholic excesses, that there was clipping of words, and ideas both of persecution and of grandeur.

His father died of pneumonia at the age of 50, and the mother, who was a highly nervous person and eccentric in conduct, died when 48 years old. Two sisters are very nervous but in fair physical condition.

The patient is given to alcoholic and sexual excesses and has had muco-membranous enteritis since 1895. He married, but never had any children; his wife died in 1895. In May, 1900, he began to show a marked change in behavior: he neglected his business, lost his memory and wandered about on the streets day and night; he made useless and numerous purchases, imagining that he was rich, that certain financial powers were bent on getting his wealth away from him. In 1895 he had a slight apoplectic attack which was followed by paralysis of the left eye. On admission he clipped the words while speaking, the tongue tremor was en masse and he also had vermicular movements; there is a left ptosis and a certain degree of facial paralysis which is the cause of marked mimic dissociation. The pupils are slightly unequal, the left being the larger, but both react well to light. The memory is much impaired, the patient being unable to tell how old he is. There is tremor of the extremities, and the handwriting translates the tremor of the hands. The patellar reflexes are exaggerated,

especially on the right side; Romberg's signs are absent, but there is unsteadiness in standing upright. Both the gait and general sensibility are normal. The somatic changes are: arterial atheroma shown by the presence of a loud second sound at the base of the heart and a slight rigidity of the radial arteries. Obesity; no sphincter disturbances. Psychically, besides the diminished memory and attention, he suffers from psycho-motor hallucinations. There is a voice in him which he calls "the gift," and the latter speaks for him. When this is the case the patient changes his usual tone of voice and speaks of himself as of a strange person. The "gift" speaks with the patient's tongue, in his teeth, conversing both with the patient himself and those who speak to him. It says disagreeable things to him at times, and that puts him in bad humor, excites him; he mumbles almost continually—conversing with the "gift;" he keeps aloof from the other patients, repeating incessantly: "that gift, that ventriloquist compels me to eat enormously, makes a glutton of me because we are two." There is, as seen, a dual personality, although incoherence accompanies its expression. Some of his letters are written by himself while others he attributes to a strange person who is master of his thoughts. He says: "There is some one who speaks with my mouth," and the letter below was written by that "some one": "I am going to take M. G.'s life in order to obtain those forty million francs. That gentleman is a pig, an assassin, I hold his hands fast." In another letter he says: "M. G. is a nice man; I always traveled with him—in Bordeaux, Marseilles and Toulon," etc. The double personality as expressed in his letters has persisted since his admission to the asylum.

Case III.—B., 38 years old, entered the Villejuif Asylum March 6, 1900, his Ste. Anne certificate stating that he suffers from general paralysis. His father is living and 70 years old; the mother, 65 years old, is in good physical condition. Ten other children in the family are in good health, although some of them are of a strumous constitution; three other children died in childhood.

The patient had syphilis before his marriage, which took place in 1886; in 1891 he had facial paralysis; from that time he has been subject to frequent spells of vertigo, and has sustained a radical change of nature; he has become sombre and indifferent. In the beginning of 1899 he suffered from marked intercostal pains which were treated with the iodide salts, but he soon interrupted the course of this treatment and manifested strangeness of behavior; he left his employment, wandered about town, and presented himself for treatment at various hospitals. At the Dubois Hospital he was given calomel injections; he soon left there and

entered a sanitarium near the Loire-Inférieure; he then returned to Paris, March 1, in a depressed condition, having ideas of being ruined, refusing to either speak or eat. He did not indulge in alcoholic excesses; his wife had four abortions: one, after the sixth year of marriage, at two and one-half months, one at seven months, one at six months and one macerated child.

On admission, the patient's pulse was rapid, 120 per minute, but the heart was free from any lesion. The general bodily condition was fair, he weighing 85 kilogrammes. There was constipation and coated tongue; the urine was free from both sugar and albumen. The patellar reflexes were exaggerated, especially on the right side; there was no disturbance in the gait, only a slight instability when standing upright with the eyes shut; the dynamometric measurement showed 40 on the right side; there was no sensory disturbance. The right pupil was larger than the left one, and both reacted defectively to light and accommodation. There was left facial paresis and mimic dissociation. His general aspect was sad, he spoke little, answered in monosyllables, and on reading there was clipping of the words, this being due to a vermicular movement of the tongue; there was also an undulating movement about the peri-bucal muscles. He seemed to be defiant, having hallucinations, and urinated while being examined. March 7 he was submitted to specific treatment and on the 15th a change took place in his condition: he became still more taciturn and apprehensive, changed incessantly from place to place and became filthy. It was difficult to keep him in bed, as he made every attempt to kill himself; he knocked his head against the walls, and tore out his moustache. He continued restless for some time until finally he became gradually quieter. On April 12 he had an apoplectic attack with complete loss of consciousness during half an hour; on recovering consciousness he had difficulty in movement of the whole left side of the body. On the 13th the hemiparesis disappeared and the left pupil was markedly contracted. On April 16 he seemed better, but was much annoyed by voices which used bad language. April 19, appearance of right facial paresis with right ptosis and enormous dilatation of the right pupil. On May 24 he became much excited and refused to eat; there was marked insomnia, and mumbling of continual insults to himself: "You went to Dubois, you are a pig, a low creature; must you be that . . ." When the sound was passed to feed him he struggled against it, saying: "They are poisoning you, they wish to kill you." He gnashed his teeth while speaking thus. In June he was improved but kept on talking, grinding his teeth: "What are you doing in this house, B.? Return to your home!" When ques-

tioned about these phrases he said that a woman talked to him incessantly in his mouth, that she moved his tongue, which spoke against his will and thus made him say insulting words to himself. He clinched his teeth in order to keep from speaking, but he found this struggle useless as he had to speak in spite of all his resistance.

On the 25th of July the voice still tormented him and caused him to murmur continually; there was complete right ptosis with deviation of the eye outward; the deviation he could correct at will, but not so the ptosis. He was subjected to treatment by iodide serum and to hypochloruration. He remained in the same condition in September and October. November 12, 1900, he related, on being questioned, that a woman spoke in him with his own mouth, saying: "B., you are a lost man; you were wrong in coming to share the table with these people; you are done for; you have committed a crime by coming here; ask for a pass from the gentleman who comes to see you; you have accomplished your mission in this establishment." When the hypodermatic injections of the serum were made he mumbled, grinding his teeth: "You are being poisoned, old man." When asked to describe the person who thus speaks continually with his mouth he says that she is a woman whom he went to see before entering the asylum, but he cannot give any further description. When direct questions are addressed to him he replies himself, but no sooner is he left to himself than he resumes murmuring—addressing insults to himself.

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# CLINICAL RESEARCHES IN CIRCULAR INSANITY.

BY DR. G. C. FERRARI,

*Editor Rivista Sperimentale Di Freniatria.*

Individual manifestations are far more numerous and multiform in mental than they are in general pathology. For this reason the method of individual observation in the former, while quite opposed to the old routine school, is yet nearer in its approach to reality than is the old method.

When the material furnished by individual psychology is applied on a larger scale to the researches in psychiatry it will become apparent, more than can be supposed at a glance, to what an extent the fundamental nosographical forms of mental disease are based on artifices. Only then will it be understood that the various syndroms are sheer inco-ordinate indices of a marked mental expansion characteristic of the patient's personality.

In 1893 I began a series of studies, in the asylum at Reggio Emilia, relating to periodic insanity, especially the form designated by the term "circular." I began by examining in the patients the sight, the reflexes, and the temperature as well as making the analyses of the urine and the blood. I collected abundant material during a period of two years' research, but found it necessary to eliminate some results which were doubtful as to conclusion. Only data of absolute value were used. Of those I will consider here the temperature and the numerical changes of the blood corpuscles.

After having discontinued the researches for three years I again started in to investigate the question in 1898. This time I limited my work to the examination of the temperature and the numerical variations of the blood corpuscles. The recent results of research were found absolutely analogous to those obtained during the years 1893 and 1894.

THE TEMPERATURE.—The temperature was taken with a finely sensitive thermometer in the external auditory canal; it was found that a large proportion of patients subject to circular insanity have a temperature designated by the term *typus inversus*, a type which *Tambroni* also observed in many cases of periodic insanity. This type of temperature exists not throughout the period of the disease, but only during that phase of it which contrasts most with the fundamental psychic state—the period of interval,



or, better yet—the period that precedes the onset of the disturbance. In cases of periodic insanity of uniform manifestation with no variety of phases—the temperature does not change in type.

THE BLOOD.—The numerical value of the blood varies with the phase of the disease in a manner analogous to that of the temperature; that is to say, there seems to exist an *inversion* in the numerical quantity of the blood corpuscles as follows: a patient ordinarily of a gay disposition, who falls ill with circular insanity, invariably has, during the periods of excitation, a number of blood corpuscles equal to that which exists during the interval between those periods, if such interval exists; whereas that number is markedly decreased during the period of depression. On the other hand, if there are some four million three hundred (4,000,300) blood corpuscles per c. c. during the condition which we call *normal* (as opposed to gay), that number does not change during the period of depression, but the number will augment more or less during the period of excitation.

The patients who were thus studied, both during 1893-94 and 1898-99, were seven in number, of whom five were women and two men.

These results, which are difficult to interpret, encourage one to theorize with some workers of to-day who have studied the same question and who conclude that many forms of insanity are but clinical varieties or phases of one and the same morbid condition which varies in manifestation according to the individual personality of the patient.

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# IDIOT AND IMBECILE CHILDREN.

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## VARIOUS CAUSES OF IDIOCY AND IMBECILITY.

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### *The Relation of Alcoholism in the Parent to Idiocy and Imbecility of the Offspring.*

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#### A CLINICAL STUDY.

BY LOUISE G. ROBINOVITCH, B. ÈS L. (PARIS), M.D.

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#### CHAPTER I.

##### HEREDITARY DEGENERACY.

*The causes of idiocy and imbecility are traceable to various factors which always originate in the parent. The most intangible cause is maternal emotion during pregnancy, but a cause underlying this one must always be looked for.—Cases.—Mental degeneracy of the parents is a cause.—Cases.—Psycho-neuroses of the family are marked causes.—Cases.—Acute physical ailments during pregnancy and contagious and infectious diseases are also causes, but in connection with these one must search for underlying bases of origin.—Cases.—Myxoedema is also a cause.—Case.—Acute diseases which are followed by psychic defects are only exciting causes.*

The study of the causes of idiocy and imbecility is indeed a difficult one and is easiest to be understood through the medium of clinical work. There one finds an inexhaustible source for study of cause and effect in idiocy and imbecility: of the genesis of the mental anomalies which manifest themselves, now in the total absence of intelligence—the extinction, so to speak, of the psychic being, and the reduction of the subject, as Dr. Magnan has it, to a digestive tube,—which characterizes idiocy,—now in an impaired or undermined intelligence, varying in degree with every subject, according to the extent of freedom of the anterior regions, which characterizes imbecility.

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This clinical study, demonstrating the existence of morbid conditions in the parents that favor the birth of degenerate offspring, is so convincing in its data that one feels forced to acknowledge that "consequences are cruel."

In some of the cases of the series collected for study, and herein cited, are found apparent difficulties in attempting to discover a tangible source of cause of idiocy and imbecility, as a reading of these cases will show; but closer application and more minute investigation will uncover these prime causes.

**CASE I.—MENTAL DEBILITY WITH EPILEPSY FROM CHILDHOOD.—ALCOHOLISM OF PATIENT SINCE ADULT AGE.—ABSENCE OF MORBID HEREDITY.—PSYCHIC EMOTION DURING PREGNANCY.**

G. A., 23 years old, entered the Admission Bureau, Ste. Anne Asylum, Paris, May 12, 1899. The full history of the patient is not to be had; it is stated by the mother, however, that there is no morbid heredity known; the mother sustained a severe shock while pregnant with the patient, by seeing a child killed. The patient was born at full term; his intelligence was always of a low order. At the age of six he became subject to epileptic attacks. He has always suffered from mental debility; when he grew up he became addicted to the alcoholic habit, which aggravated the severity and frequency of his convulsive attacks and still further lowered his mental status.

**CASE II.—IDIOCY FROM INFANCY.—ABSENCE OF HEREDITARY DEGENERACY.—MATERNAL EMOTION DURING PREGNANCY.**

R. L., 3 years old, entered the Admission Bureau July 26, 1898. Her father, a butcher, says that he is temperate and well, but his claim of temperance is subject to question. The mother also is healthy, but while pregnant with the patient she sustained a severe burn of the arm which was sore three weeks; at the end of that time the patient was born. L. came into the world at full term, but her intelligence has not developed up to the day of her admission to the asylum. She has always suffered from convulsions, is filthy, does not speak, does not understand what is said to her—her whole existence is reduced to feeding herself; in a word—she is an idiot.

Causes such as those cited in the preceding two cases do not make up the bulk of those to which are ascribable the birth of idiots and imbeciles. Clinical observation refutes the theory that deep-rooted affections of the child's brain can be caused by such subtle factors as a maternal emotion during pregnancy, exclusively. A thorough search into histories like the preceding

ones must reveal the presence of a more substantial cause of the abnormal condition. In such a search one must look carefully for the possible existence of physical or psychic stigmata of degeneracy of the parents; in the absence of such stigmata, a psychopathic taint of the parents may have crystallized itself into idiocy or imbecility of the offspring in conjunction with such a slight cause as a maternal emotion during pregnancy; but such an emotion can be admitted only most tentatively as the causative agent of the birth of a profoundly abnormal psychic being.

The mere statement of the parents that there is an absence of either physical or psychic stigmata of degeneracy, or of any psychopathic or neuropathic taint, is not to be accepted unquestioningly. For the physical stigmata may be deep seated and the psychic stigmata or psycho- or neuro- pathic taint may not have been discovered during the examination. In a hundred cases of idiot and imbecile children, to be cited later in tabulated form, there are two cases only where maternal impressions during pregnancy were claimed to have been causes of the affliction of the offspring. On examination, however, it was found that in one of those cases the mother had physical stigmata of degeneracy, and in the other the mother suffered from pulmonary tuberculosis. It is more than probable that a thorough search in this latter case would have revealed the presence of more important pathological factors as responsible elements.

In another case, where the full family history could not be obtained, the father drinks alcoholic beverages—as he states it—moderately.

CASE III.—MENTAL DEBILITY WITH EPILEPSY FROM INFANCY.—  
ABSENCE OF HEREDITARY DEGENERACY.—MOTHER SUSTAINED  
A SEVERE FRIGHT WHILE PREGNANT; SHE DIED OF PUL-  
MONARY TUBERCULOSIS.

L. E., 29 years old, entered the Admission Bureau June 19, 1898. The full history of the family cannot be obtained. The mother had a severe fright while pregnant with the patient. She died of pulmonary tuberculosis. The patient has always been an imbecile and suffered from epilepsy.

CASE IV.—MENTAL DEBILITY WITH EPILEPSY FROM INFANCY.—  
FATHER INDULGES IN ALCOHOLIC DRINKS.—MOTHER HAD  
A SEVERE EMOTION WHILE PREGNANT WITH THE PATIENT.

G., entered the Admission Bureau May 23, 1899. The father, according to his own statement, drinks moderately. The mother is

healthy. She had a severe quarrel while pregnant with the patient. The full history of the case cannot be had. The patient was born at full term; he is suffering from mental debility with epilepsy.

As is seen from the history, this case does not properly belong under the heading in question, as the alcoholism of the father can without any hesitation be considered the responsible factor in causing the mental debility with epilepsy of the patient.

As for clinical demonstration of the workings of hereditary degeneracy in the birth of idiocy and imbecility, one has only to direct his attention to the existing facts. In the case below cited this fact is amply illustrated to the satisfaction of the sturdiest dissenter from the theory of hereditary influences. It is a most unusual occurrence for parents who are bearers of stigmata of degeneracy to give birth to normal children.

CASE V.—MENTAL DEBILITY WITH PERVERSION OF THE INSTINCTS.—FATHER HAS PHYSICAL STIGMATA OF DEGENERACY AND IS A NATURAL CHILD; THE PATIENT ALSO IS A NATURAL CHILD.

B. E., age 14, entered the Admission Bureau, Ste. Anne Asylum, Jan. 17, 1899. The father is a natural child and has physical stigmata of degeneracy. He is a musician by occupation and is temperate. The mother is healthy and has had four children—all natural children: one, a boy, 17 years old, is healthy; a girl, 8 years old, is cachectic; a girl, 3 years old, has frequent spells of loss of consciousness. The patient is suffering from mental debility with perversion of the instincts. He practices onanism and spends most of his time in vagrancy. At times he forsakes the paternal roof for days and refuses to give any account of himself.

CASE VI.—IMBECILITY WITH EPILEPSY.—CONVERGENT HEREDITY.—MOTHER HAS PHYSICAL STIGMATA OF DEGENERACY.—FATHER DIED OF DIABETES.—PATERNAL UNCLE DIED OF "CONVULSIONS."

P. C., 18 years old, entered the Admission Bureau, Ste. Anne Asylum, March 13, 1899. The father died of diabetes; the mother has physical stigmata of degeneracy. A paternal uncle died of "convulsions." The patient was born at full term; he had convulsive attacks during infancy, which appeared again after his eleventh year; he is an imbecile, suffers from epileptic attacks and is unable to care for himself.



## NEUROSES AND PSYCHOSES AS CAUSES.

Thus far we have traced the birth of idiocy and imbecility from the subtlest apparent causes, such as maternal impressions, to a more tangible one—as, psychic degeneracy of the parents. The former cause, if it can be accepted as an exclusive one clinically—produces a small percentage of idiot and imbecile children. Even in that small number of cases one must search for more responsible elements. Neuroses and psychoses of the parents, combined, as may be judged, play an important part in the birth of idiot and imbecile children; in the case below given the patient has a convergent pathological heredity.

CASE VII.—IMBECILITY WITH PORENCEPHALUS.—SPEECH SLIGHTLY DEVELOPED IN INFANCY, AND PROGRESSIVELY AND PERMANENTLY LOST AFTER THE AGE OF TEN.—CONTRACTURES OF THE FOUR EXTREMITIES AND CURVATURE OF THE SPINE.—NEUROPATHIC AND PSYCHIC HEREDITY.

H. J., 18 years old, entered the Admission Bureau, Ste. Anne Asylum, March 23, 1894. Her father was a shop clerk and temperate. He was highly nervous; the slightest contradiction made him tremble with anger; he committed suicide. The grandfather, temperate, was ill during the last six years of his life, and died in 1870 of cerebro-spinal meningitis. The paternal grandmother died of pneumonia. She was nervous, weeping on the slightest provocation; she did not have any convulsive attacks; she stuttered. The maternal grandfather died when the patient's mother was a child, and her mother died at the age of 52, from intestinal obstruction. On the father's side, the uncles and aunts died, one of chorea, at 14 years, two in infancy, and one from pleurisy, at 21 years; on the mother's side there were no uncles or aunts. The mother is not subject to convulsions of any kind, but is very nervous. Often, on seeing her husband enter the room she was in, she would suddenly scream. When pregnant with the patient she suddenly became paralyzed, presenting a left hemiplegia and anesthesia; this lasted a month, comprising the two weeks preceding and the two weeks following the birth of the patient. The patient's younger sister died of meningitis when 18 months old; one sister, 14 years old, is moderately intelligent; another sister, four years old, has her menstrual flow, and finally, there is a sister three months old.

The patient was born at full term, forty-three hours after the beginning of labor. The physician in attendance wished to apply the forceps, but the mother objected, and the child was asphyxiated when born. Restorative means were used, and the child gave the first cry four hours after delivery. The first four days she could not suckle and was fed by having nourishment dropped into her

mouth by means of a syringe. The child could move its limbs during the first five days after birth, but on the sixth day she had a convulsive attack that lasted nine days. This left her a cripple, as she lost the use of her limbs. She has never walked. At the age of four she began to speak some simple words, such as "mamma" and "papa", but not long after that became entirely unable to articulate. Since the age of ten she has not spoken a word. There is a certain amount of intelligence left: she apparently recognizes persons whom she has seen a few times. The legs and arms began to cross when the child was eighteen months old, and she has been unable to sit up, remaining on her back. She has a spinal curvature. She menstruated for the first time when sixteen years old, but the flow is irregular in its periodic appearance.

Such are the clinical results in some cases of convergent neuroses and psychoses. Epilepsy of the parents seems to be a fruitful source of idiocy and imbecility of the offspring. As every one knows, epilepsy in the parent is *most* apt to engender epilepsy in the offspring; in such cases idiocy and imbecility often co-exist with the convulsive malady; again, the latter affections may be the sole manifestations of the morbid heritage. In an unpublished paper on epilepsy soon to appear, these facts are demonstrated in a table comprising 130 cases.

#### ACUTE PHYSICAL AILMENTS DURING PREGNANCY.—CONTAGIOUS AND INFECTIOUS DISEASES OF THE PARENTS.

Among the causes known to influence the embryonic development of the cerebrum are also the acute infectious and contagious diseases of the mother during pregnancy or the infectious and contagious diseases of the father before conception of the offspring. It is a delicate question to decide whether or not perfectly healthy parents, with no morbid hereditary taint, will give birth to an idiot or imbecile child under the conditions mentioned above. I have not in my possession a sufficiently large number of cases to warrant a more definite statement than the one that acute diseases during pregnancy are often a determining cause of the maladies in the offspring, and that contagious and infectious diseases of either parent are also contributive to the same end. The case that came to my notice is one in point.

#### CASE VIII.—IDIOCY.—HYDROCEPHALUS WITH CONVULSIONS AND TURBULENCE. — PARAPLEGIA. — FILTHINESS. — PREMATURE BIRTH.—SMALLPOX OF MOTHER DURING PREGNANCY WITH PATIENT.—ALL THE OTHER CHILDREN HEALTHY.

D. O., 18 years old, entered the Admission Bureau, Ste. Anne Asylum, August 17, 1898. The full history of the family cannot

be obtained. The mother contracted smallpox in the seventh month of her pregnancy with the patient. Before this child she had a girl who is 16 years old and is healthy, and after the patient's birth she had twins\* who are now seven years old; both are healthy. There were no miscarriages. The patient was born before term, at seven months, while the mother was ill with smallpox. At six months it was noticed that the child's head was of unusually large size for her age, and that the enlarging of the head was accompanied by convulsions at frequent intervals. The hydrocephalus was progressive in growth for some time. The child has always been filthy, has never either walked or talked and is turbulent most of the time.

#### SYPHILIS.

Syphilis of the parent is apt to cause varied ailments of the offspring. It is astonishing that of the few hundred cases of idiot and imbecile children whose histories I have studied, only a few of the patients are said to have been born of syphilitic parents. In the statistical table of a hundred idiot and imbecile children, which will follow, the number of syphilitic parents is quite small. It must be supposed that, while in a large city like Paris, there is a larger percentage of syphilitic parents than my table indicates, the small percentage of parents described as thus afflicted is due either to reticence in giving the information, or ignorance of the existence of the disease. The case below is an instructive one as to the direct relation of syphilis in the parent to idiocy of the offspring.

#### CASE IX.—IDIOTCY WITH TURBULENCE.—BROTHER AND SISTER HEALTHY. — MOTHER NERVOUS. — FATHER CONTRACTED SYPHILIS SHORTLY BEFORE CONCEPTION OF THE PATIENT.

P. G., 2 years old, entered the Admission Bureau, Ste. Anne Asylum, March 1, 1899. The father states that he always enjoyed good health and has been temperate, but that the mother was nervous. They have had three children: a girl who is now 17 years old; a boy, 15 years old, and another boy, ten years old; all three are enjoying perfect health. The father states that he contracted syphilis in 1896, and that the patient was conceived shortly after this took place. It is not stated whether the mother contracted the malady.

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\*The birth of more than one child at a time is considered by some authorities in psychiatry as indicative of degeneracy of the parent or parents.

The patient was born at full term, but he has no development of intelligence and is an idiot. His whole existence consists in absorbing food and being noisy.

The history below given represents a more varied clinical case.

CASE X.—EPILEPSY WITH MENTAL DEBILITY.—VAGRANCY.—  
LACK OF MORALITY BEGINNING AT THE AGE OF EIGHT.—  
SYPHILIS AND HYSTERIA OF MOTHER.

R. H., 16 years old, entered the Admission Bureau, Ste. Anne Asylum, January, 1897. The father is healthy, temperate, has no convulsions; he states that there is neither alcoholism nor syphilis on his side of the family. The mother, on the contrary, had syphilis when 23 years old. She has been subject to hysterical spells; though free from them now, she has frequent attacks of what the French call "absence"—a sudden spell of vertigo and amnesia of events transpiring during the spell. She has had eight children, of whom six have died: one at the age of eleven, one at nine, one at two and one at eighteen months, died from meningitis; one died from an accident, and one at five years—cause not stated. H. had meningitis when four years old, and since that date her intelligence has been impaired; she also became subject to convulsive attacks: she screamed and fell in a heap, foaming at the mouth, but did not lose her urine. After the attack, which came two or three times every month, she remained stupefied during a period lasting from one to two hours, not recognizing those about her. The attacks, however, lessened in severity as time went on, and when she was ten years old disappeared completely. Her mental condition has undergone a change. At eight years she began to roam about on the streets, allowing herself to be taken away by young men. Her memory has failed and she has not learned to either read or write. Since the convulsions left her she has been subject to simple spells of sudden vertigo, which unfit her for any steady occupation. Thus, when 14 years old, she was sent out, one day, with her brother, on an errand. She left him on the way and did not return home. When a search was made for her the next day she was found, towards evening, sitting on a bench where, she said, she had spent the night.

AUTO-INFECTION—MYXŒDEMA.

Among the auto-infections, myxœdema is pre-eminent as a cause of imbecility. Place cannot be given here to a lengthy discussion of the pathology of the disease and the statement will simply be corroborated by a clinical illustration of this variety of mental infirmity.



CASE XI.—MYXŒDEMA.—ABSENCE OF THE THYROID GLAND.—  
ARREST OF PHYSICAL AND MENTAL DEVELOPMENT BEGIN-  
NING AT THE AGE OF SIX.—MENTAL DEBILITY.

A. S., 17 years old, entered the Admission Bureau, Ste. Anne Asylum, July 30, 1896. The father, 48 years old, is a drunkard; the mother was born in Calais, and died of chronic bronchitis when 46 years old; one brother, 14 years old, is of normal growth and features, and is an apprentice in a packing house. At the age of 10 he had typhoid fever which left no sequelæ. The second in the family is our patient; the third, a normal girl, who died of an acute infantile disease when five years old.

The patient's history is given by her brother, 14 years old. She was born at full term and nursed by her mother. The child was cachectic and sickly all her life. When two years old she had some convulsive attacks; it was also noticed that there was curvature of the shin bones, and orthopedic apparatuses were used to rectify the defect. The child grew normally, however, until she was six years old; from that date she made no progress in growth. She has always been good natured, cleanly, coquettish, but the intellect not only remained stationary but is to-day no higher than that of a three-year-old child.

Physically she presents cranial and facial asymmetry, the right side of the cranium being better developed. The face, on the contrary, is the better developed on the left side. At first sight the most striking feature about her is the smallness of her body, which measures 1 metre and 9-100 centimetres. The relatively normal size of the head contrasts with the dwarfed appearance of the body.

The cranium is large in the back and disproportionately narrow in the front. From the measurements below it can be classed as a dolicocephalic one.

DIAMETERS:

Antero-posterior maximum	.....	.183 m.
Occipito-frontal	"	.179 m.
Biparietal	"	.142 m.
Bizygomatic	"	.137 m.
Vertical	"	.129 m.
Metopic	"	.182 m.

The ossification of the cranial cap is complete. The hair is abundant, coarse, stiff, and irregularly implanted in tufts.

The face is large and round; the forehead is narrow and low; the growth of the hair comes well down the forehead. The skin of the forehead is thick and has many furrows. The eyelids are

thick in the upper part and the palpebral opening seems small. The nose is wide at the root (like a negro's); the lower lip and the cheeks are heavy; the color of the face is normal. The teeth present malimplantation, particularly in the upper jaw. The first incisors are very large while the second upper incisors are too small. The lower teeth are regular but have the appearance of the Hutchinson teeth. There is no hypertrophy of the tongue, of the mucous membranes of the mouth or of the pharynx.

**BODY.**—The most marked feature is the absence of hairy growth in the arm pits and on the pubis. The breasts are sufficiently developed but devoid of nipples; the abdomen is large, like that of the batrachian. The limbs are small and undeveloped.

**SKIN.**—On the forearms the skin is thick, purple in hue and markedly cold; this marked cyanosis and low temperature is also found to exist in the hands, which are thick and spade-like in form; the fingers are thick, the finger nails are ribbed vertically, short and atrophied. The tibia and fibula are curved about the point between the lower two-thirds of the bones.

**THYROID BODY.**—This gland is almost totally absent, with the exception of the right lateral lobe; the trachea and larynx are easily felt, as they are exposed by absence of the gland.

**HEART.**—No murmurs, the sounds being regular.

**PULSE.**—78 to 81, small. Arterial tension 11 centimetres of mercurial pressure; respiration—costal type, 15.

**DIGESTIVE ORGANS.**—Normal digestion and alimentation; chronic constipation.

**GENITO-URINARY APPARATUS.**—Scanty urine; menstruation never took place until she was subjected to thyroid gland treatment.

**THE SPECIAL SENSES** are normal, but the patient is highly sensitive to cold.

**GAIT.**—Slow, but normal.

**MENTAL CONDITION.**—Cretinoid immobility of face, slow and monotonous speech, obtuse memory, apathy, emotional; no perversion of the instincts. She can count up to one hundred, but the number seems to her an enormous one. Even ten is a large number to her, which she counts on her fingers. She can neither read nor write, but she says she was never taught to do either.

*(This case is published by special permission of Prof. Joffroy. The history of the result of the treatment with thyroid glands is omitted here.)*

## ACUTE CONTAGIOUS AND INFECTIOUS DISEASES OF INFANCY.

The acute contagious and infectious diseases of infancy, when leaving such psychic sequelæ in the patient as either idiocy or imbecility, act only as exciting agents in bringing about these infirmities. A close study of the histories of such patients always reveals the presence of hereditary psychic or neurotic infirmity in the direct or collateral family. In the appended table of one hundred idiot and imbecile children only three had sustained mental impairment through acute disease; but an analysis of those three histories shows that the acute diseases were only additional morbid exciting factors to a pre-existing pathological heredity. Indeed, case No. 24 in the table had typhoid fever when five years old and his intelligence remained impaired after that malady. The history states, however, that the patient's father was an epileptic. Case No. 40 had typhoid fever when seven years old. The patient suffers from mental debility, perversion of the instincts and impulsive tendencies. He had convulsions, however, from birth—some eleven attacks daily—until he was  $5\frac{1}{2}$  years old. The father of this child was melancholy and violent and the mother had convulsions when a baby. Case No. 62, an imbecile with perversion of the instincts, had typhoid fever four years after his recovery from the disease. The mother is insane, the father died of heart disease and one sister is insane.

From what precedes it is evident that a scrupulous search must be made in the family history before incriminating an acute contagious or infectious disease as being a causative agent of either idiocy or imbecility of a child.

I have endeavored to adduce the information furnished by clinical work, which shows to what an enormous extent morbid heredity is responsible for the birth of idiot and imbecile children. Until now I have considered the manifold and varied causes of idiocy and imbecility of the offspring as revealed by clinical observation. In all cases, with a minimum number of exceptions, there existed a pathological heredity that was radically responsible for the children's psychic ailment. The percentage of the psychic and neurotic heredities is indeed a large one in the families that give birth to idiot and imbecile children; but there is a special morbid heredity, peculiar to itself, and which towers, in its high percentage, far above any other in the scale of morbid heredities responsible for the birth of idiot and imbecile children; that heredity is alcoholism of the parent and will be considered in the next chapter.

*(To be continued.)*

# A CONTRIBUTION TO THE FISSURAL INTEGRALITY OF THE PAROCCIPITAL; OBSERVATIONS UPON ONE HUNDRED BRAINS.\*

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## I.

Chief among writers upon encephalic anatomy, Turner, Cunningham, Parker and Wilder stand as exponents of several hypotheses concerning the status and origin of the Paroccipital fissure. Turner (1) and Cunningham (2) consider it the *pars occipitalis* of an "intraparietal fissural complex" composed of four factors. Wilder (3) considers it a zygal fissural integer, his main point being its greatest depth at its middle, with no evidence of a transverse occipital at its caudal end more than at its cephalic, and with no approach to the parietal. Of more recent date is the work of Parker (4). This author, taking into consideration the development of new conditions and pressure forces as cerebral growth continues, in a skull which assumes a more fixed and rigid shape, concludes that it is not a fissural integer at all, but merely a modification produced in the manner of connection of the originally confluent intraparietal and fissura perpendicularis externa, and that, for reasons pointed out by him, this so-called paroccipital is deepest at its middle point and gradually becomes shallower as it joins the intraparietal and backwardly displaced fissura perpendicularis externa.

The scope of this article does not permit the writer to go far into the details of Parker's argument, but I shall endeavor to give a brief account of his idea of the development of the fissure since it serves as the main basis for the present discussion.

In Fig. 1 is reproduced the condition presented in the majority of the Simidæ, in diagrammatic form, and copied from Parker's Fig. 18. A B represents the intercerebral cleft, P O the "parieto-occipital," i p the "intraparietal," O<sup>1</sup> the exoccipital (f. perpendicularis externa), P<sup>1</sup> and P<sup>2</sup> represent the parietal and subparietal gyres respectively, while O is the occipital lobe.

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\* Read before the Association of American Anatomists, Fourteenth Session, held at Baltimore, December, 1900.



Now, as is well known, at some point near P O, but concealed within the depths of the fissure, "there develops in the monkeys, "from its floor, a small bridging convolution,"\* and the external perpendicular fissure, O<sup>1</sup>, is "pushed backward just in proportion to the development of this gyrus." Every one will recognize this as Gratiolet's *premier pli de passage*, which in man attains the dignity of a *paroccipital gyrus*, as it was first called by Wilder. We see, then, that Parker attaches much significance and value to the relative growth of this "pli de passage" in the subsequent formation of the paroccipital fissure, and he advances the opinion (*loc. cit.*, p. 336) that all the *plis de passage* "are nothing but the posterior extremities of the occipito-frontal and occipito-temporal convolutions, which, checked in their development by the evolution of the occipital lobe in Primates, lie concealed in the majority of them by the overhanging operculum,† whilst in the higher forms, through a renewed growth in this region, as we have seen in the case of the convolution 2 (i. e., the *premier pli de passage*) they finally reach the surface, displacing in their turn the operculum and pushing it backward."

The more one studies the morphology of the cerebral fissures and gyres, the more apparent does the value of Gratiolet's *plis de passage* become, and it is to be regretted that Ecker (5) should have wholly rejected the name because they appeared to him to have no justification in the human brain.

Parker does not proceed further in his very excellent argument, though he might readily have done so and assigned an equally important rôle to the *deuxième pli de passage*. If we take up the discussion at the point where Parker left it, it can be readily understood how a simultaneous upgrowth of the *deuxième pli* would serve to limit the ectal extension of such a paroccipital, always bearing in mind that it must be regarded as a segment of the simian exoccipital. The chief difficulty that we encounter then is that we have a zygon of variable length to deal with and one directed generally transverse to the course of the exoccipital fissure.

Let us assume that the growth of both the *premier* and *deuxième plis* takes place simultaneously; if we begin with the conditions as they exist in most of the Simiadæ, as in Fig. 1, such development will result in the isolation of a segment of the exoccipital situated between the two *plis* and forming the proton ("anlage") for a paroccipital zygial fissure.

Parker has shown (*loc. cit.*, p. 335) how a combination of ex-

\* Parker, *loc. cit.*, p. 321.

† "Poma" of Wilder.

pansive forces and resisting forces controls the development of such zygal, as well as of the tri-radiate and quadri-radiate fissures, applying for this purpose the principles deduced by the eminent physicist Plateau (6). In brief, he finds a stable equilibrium in the zygal form due to the apposition of four plastic spheres. (Plateau's experiments were accomplished by means of soap-bubbles floating on water, or upon a glass plate.) In the brain the four spheres which are here crowded together in the confines of the cranium are represented in the following four gyal elements:

- I. *Premier pli de passage.*
- II. *Deuxième pli de passage.*
- III. *Parietal lobe.*
- IV. *Occipital lobe.*

Development and growth takes place more rapidly and more forcibly on the part of elements I. and II., and hence crowd together before III. and IV. could do likewise, the result being a zygal fissure whose zygon runs in a transverse direction to the course of the interrupted exoccipital. A rapid review of these developments resolves itself into the following synopsis:

*First.* An unbroken continuity of the mesial occipital with the exoccipital fissure (as in most forms of Simidæ).

*Second.* A simultaneous upgrowth of the *premier* and *deuxième pli de passage* of Gratiolet, bridging the exoccipital and including between them a fissural segment of the exoccipital forming the proton ("anlage") for the future paroccipital.

*Third.* An increased growth of these two *plis de passage*, crowding upon each other while at the same time pushing apart the occipital and parietal lobar parts at this site, giving rise to the zygon or stem.

*Fourth.* The accompanying, though lesser resistance of the parietal and occipital elements, situated cephalad and caudad giving rise to the rami and stipes of Wilder's description.

The questions involved are, then: is the paroccipital a true fissural integer, or not; if not, of what fissure is it a part?

Turner and Cunningham evidently consider its main portion a part of the intraparietal, while its caudal rami represent a segment of the "affenspalte," equivalent to Ecker's "transverse occipital" and Eberstaller's "anterior occipital." Wilder's idea has already been referred to. Parker strongly urges that it is a part of the external perpendicular fissure (exoccipital) with an accompanying modification of its junction, at that site, with the "intraparietal" (parietal f.), but he likewise believes the caudal rami to constitute a transverse segment of the fundamental external perpendicular fissure. With this idea the present writer cannot agree

entirely, but Parker's main proposition, that the paroccipital represents a gap in the interrupted exoccipital is doubtless a true one. The comparative frequency of confluence or of separation of the parietal and paroccipital fissures seems to me to involve a question of only secondary importance—that of determining the average standard of fissural and gyral disposition in the human adult brain. These relations are considered at length in the second part of this paper.

In the endeavor to explain the causation of this zygial fissure, the writer may possibly be understood to advocate the old theory advanced by Ecker, that the formation of convolutions is the necessary consequence of mechanical processes. This theory so far as the typical cerebral pattern is concerned, has been abandoned by most morphologists, and rightly so. "Mechanical packing" as a cause of the cerebral configurations is by far the least important factor, physiologically as well as morphologically. But I do maintain that so far as zygial fissures are concerned, especially if they represent gaps in what was once a continuous fissure or cleft, that the dynamic factors are of great—if not paramount importance.

Otherwise the cerebral fissures represent lines of retarded growth with respect to the gyres, and thus have some morphological significance with reference to cell-growth, the reaction of fibres and other factors; and that presumably they represent lines of structural demarcation.

The importance of seeking corroborative evidence for these propositions in an extended research upon the appearances and conditions existing in the brains of fœtuses, both human and anthropoid, will be realized by the reader. Prior to the advent of the important discoveries of histological methods which attracted the great majority of original workers, macroscopic and developmental encephalic anatomy occupied an important position in the biological sciences; it seems as if this branch will soon regain its former importance and receive the earnest attention and labors of scientific men. The correlation of structure and function is of greatest significance in the study of our organ of the mind.

## II.

While engaged in the study of this fissure, I followed out the suggestion of Wilder and tabulated the number of confluences and separations of the parietal and paroccipital fissures in one hundred brains taken from dissecting-room subjects.\* In the classification

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\* The writer is indebted to Professor Huntington and Dr. Gallaudet. of the Columbia College of Physicians and Surgeons, for the privilege of examining these brains.

of these results all possible conditions come under four heads, as follows:

Class I. Left continuity, right separation.

Class II. Left and right continuity.

Class III. Left and right separation.

Class IV. Left separation, right continuity.

In the present researches the following results were obtained:

Class I.....32 per cent.

Class II.....45 per cent.

Class III.....17 per cent.

Class IV..... 6 per cent.

There was continuity in 64 per cent. of all hemispheres, and separation in 36 per cent., distributed as follows:

	Continuity.	Separation.
Left hemisphere....	77 per cent.	23 per cent.
Right hemisphere....	51 per cent.	49 per cent.

In 62 per cent. the conditions were symmetrical, that is, there was continuity or separation on both halves of the same brain; conversely, asymmetry prevailed in the remaining 38 per cent.

These results are compared with those of Wilder in the following table. Wilder's figures were taken from his "Lecture Notes for 1900" (Cornell University), which were kindly placed at my disposal. They are also based upon observations on one hundred brains, not exclusively of dissecting-room subjects, but including various grades of social and intellectual walks of life, and of infants as well as adults. In general the results are similar; a notable difference consists in the percentages of Classes I. and II.; there is therefore a greater frequency of symmetrical conditions in the writer's observations, perhaps due to the average lower grades of the brains at my disposal.

	B. G. Wilder. Per cent.	E. A. Spitzka. Per cent.
Class I.....	44	32
Class II.....	33	45
Class III.....	17	17
Class IV.....	6	6
Continuity (all cases).....	58	64
Separation (all cases).....	42	36
Left continuity .....	77	77
Left separation .....	23	23
Right continuity .....	39	51
Right separation .....	61	49
Symmetry .....	50	62
Asymmetry .....	50	38

As in Wilder's series, Class IV. (*i. e.*, left separation and right continuity) is represented in only 6 per cent. For a long time Wilder had found only one such specimen, from an insane Swiss woman. In the spring of 1900 he found five additional cases, two of unknown males, one of an unknown female, one of an insane engineer, and one of an insane negro. One might be tempted to attach some significance to these facts if the writer had not found the same condition in the brain of Dr. Edouard Seguin, the elder of two distinguished physicians.\* Curiously enough the son's brain (that of Dr. Edward C. Seguin) presents the reversed conditions.

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- 2.) '90—D. J. Cunningham, "The Intraparietal Sulcus," *Journal of Anatomy and Physiology*, Vol. XXIV., pp. 135-155.
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- 4.) '96—A. J. Parker, *Morphology of the cerebral convolutions with special reference to the order of Primates*. Part 3, Vol. X., *Jour. of Academy of Natural Sciences of Philadelphia*, 1896.
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## EXPLANATION OF THE FIGURES.

Fig. 1. Schematic outline of the intraparietal-occipital fissural complex in the majority of Simiadae. (After A. J. Parker.) See text.

Fig. 2. Schematic outline showing the development of the paroccipital gyrus. O' O' is regarded by Parker as the backwardly displaced "external perpendicular fissure" (exoccipital).

Figs. 3 and 4 represent four plastic spheres, placed in apposition, and showing the zygal or H-shaped arrangement of the partitions. (Plateau's experiments.)

Fig. 5. Application of Plateau's arrangement to the gyral elements in

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\* These brains were described by the writer in a paper (6) read before the Association of American Anatomists in Baltimore, December, 1900, and also before the Section on Anthropology and Psychology, New York Academy of Sciences, February 15, 1901, by invitation.



and about the exoccipital fissure. I. is the paroccipital gyrus, or *premier pli de passage*; II. is the *deuxième pli*; III. is the parietal lobe; IV. is the occipital lobe.

Fig. 6. Schematic arrangement of the fissures as they are represented in the adult human brain.

Fig. 7. Class I., left continuity and right separation of the parietal and paroccipital fissures. Present in 32 per cent. of the writer's series.

Fig. 8. Class II., continuity of these fissures on both sides, present in 45 per cent.

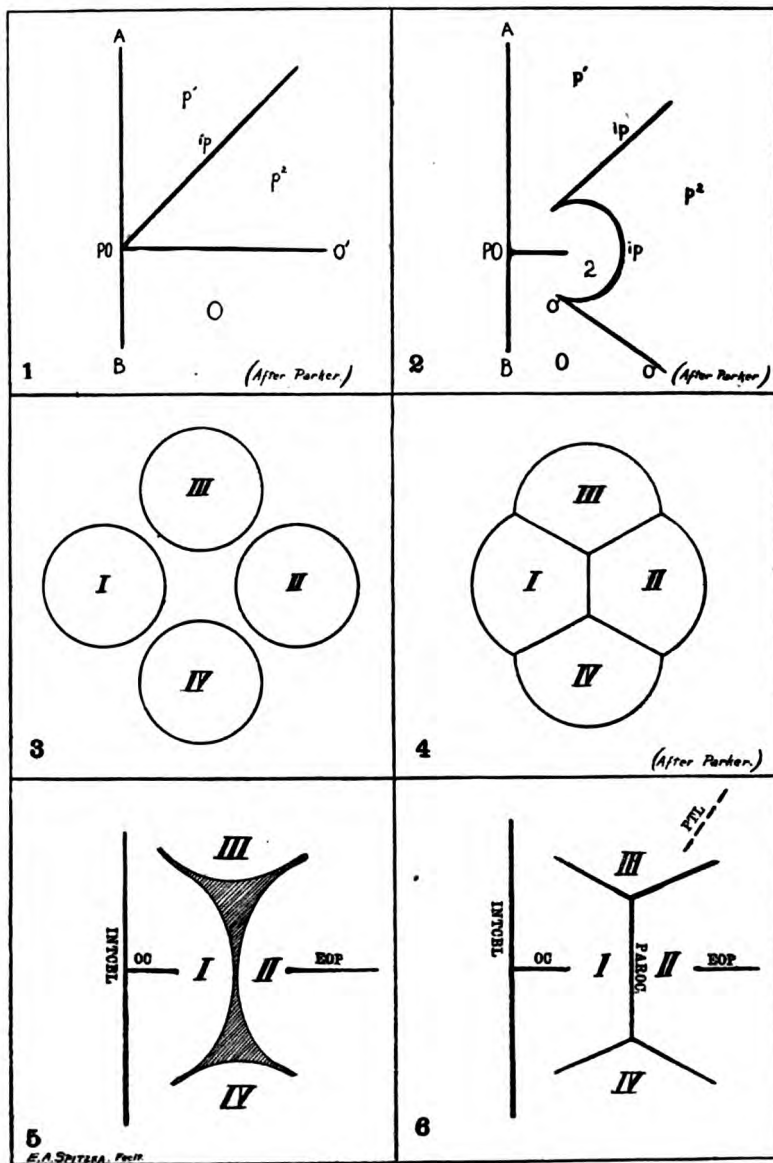
Fig. 9. Class III., separation on both sides. Present in 17 per cent. of cases.

Fig. 10. Class IV., left separation and right continuity, the rarest condition. Found in only 6 per cent. of the writer's series.

#### ABBREVIATIONS.

FISSURES.		GYRES, ETC.	
EOP	Exoccipital f.	OCCIP. LOBE	Occipital lobe.
INTCBL	Intercerebral cleft.	PAROC. G	Paroccipital g.
OC	Occipital f.	PAROC. ISM.	Paroccipital isthmus.
PAROC	Paroccipital f.	PTL. G	Parietal g.
PTL	Parietal f.	SBPTL. G	Subparietal g.

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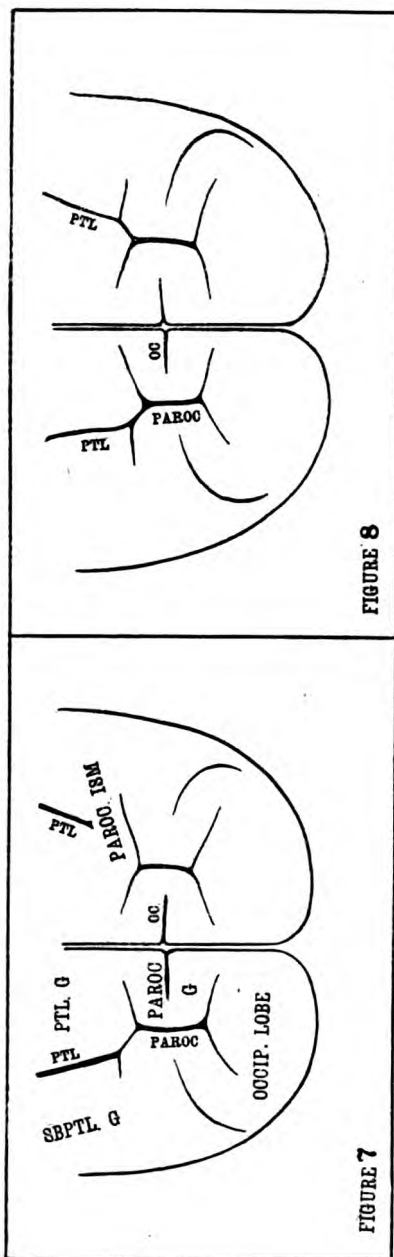


FIGURE 7

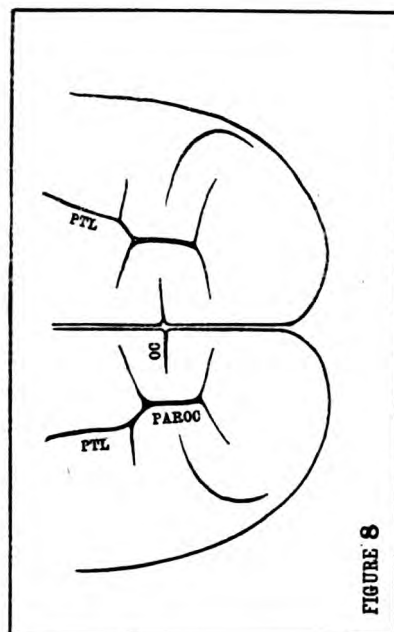


FIGURE 8

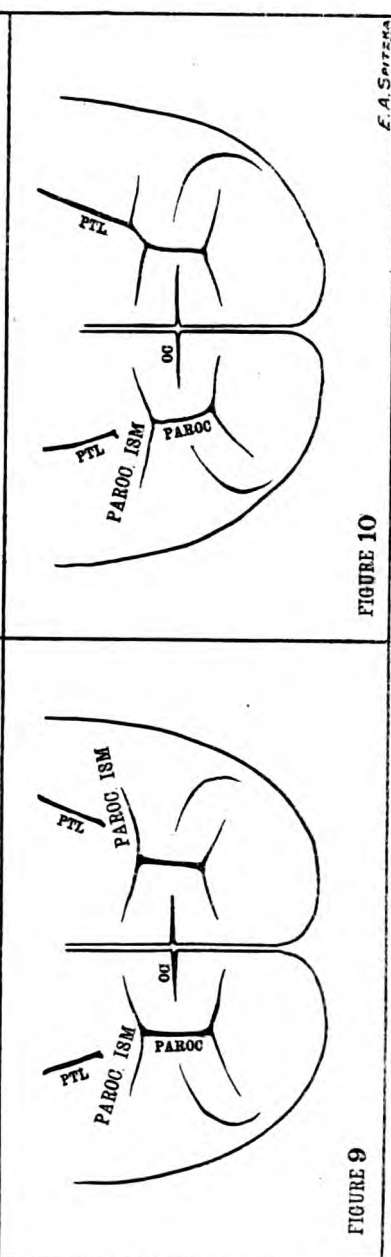


FIGURE 9

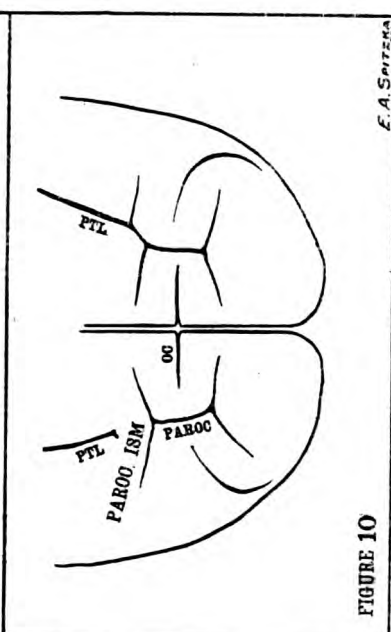


FIGURE 10

## SUGGESTION DURING NATURAL SLEEP.

BY DR. PAUL FAREZ, PARIS.

Psychotherapy has now definitely demonstrated its right to existence in the scientific world by the variety, multiplicity and stability of its curative effects.

The main modes of action in psychotherapy are of varied value: direct suggestion during the waking state, indirect suggestion, by means of medicaments, electricity, etc., have all been used with unquestionable success. Suggestion during induced sleep is, of course, the method most generally accepted—the heroic method; it enables us to act on the patient most efficaciously and to obtain the most permanent cure. According to the expression of Durand de Gros, indeed, the subject hypnotized is plunged into a condition of hypotaxia; the patient's mind is free from all distraction, he is offering no mental resistance, being submissive and docile; his psychic being presents a fruitful soil upon which ideoplastia can cause active suggestion to germinate.

The principle of psychotherapists to-day is to succeed in hypnotizing the largest number of patients possible with the greatest ease, and within the shortest period of time. For this reason many practitioners endeavor to perfect their technique and propose new methods of procedure, instruments and apparatuses as ingenious as they are varied.\* Regardless of these praiseworthy efforts, however, a great number of patients who can justifiably be treated by suggestion fail to be hypnotized; others refuse to allow themselves to be thrown into a hypnotic state, expressing unjustifiable but none the less irresistible fears and apprehensions. These two classes of patients are not, however, to be definitely given up as persons not subject to treatment by means of psychotherapy: they can benefit by curative suggestion if the means of suggestion is utilized during normal sleep.

Authentic observations, convincing experiments and proven cures show the efficacy of suggestion made during natural sleep. One may say that this mode of suggestion is the method succedant or substitute of the hypnotic suggestion and that the former mode is applicable to all cases amenable to psychotherapy.

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\*I desire to mention particularly the apparatuses lately presented at the second international congress of hypnotism and at the society of hypnology of Paris by MM. Bellemaniere and Watteau, Berillion, Lemesle, Paul de Saint Martin and Verdin.

A suggestion made, suddenly, into the ear of a patient who has just fallen into natural sleep has sometimes proven of value. More frequently, however, the contrary is the result. The reason for failure is a double one: either the patient wakes up as the verbal suggestion is enunciated or else he continues in a profound sleep and the suggestion fails to impress him. Before active suggestion can be made use of during natural sleep it therefore becomes necessary to bring the patient into a preparatory condition as follows: the patient must be in a condition such that he may be spoken to without his being awakened and his condition must be such that suggestions made should reach him and nestle in his consciousness. This condition is attained by means of simple but minute, delicate and tedious procedures, requiring of the psychotherapist much patience and circumspection. We must recall to mind the psychological fact that the condition of hypotaxia is the easiest to be obtained by causing the persistence of a sensation that is simple, homogeneous, continued, uniform and exclusive. In the present case I make use preferably of the auditory sense. I give below, therefore, in general outline, the technique I endorse, with so much more confidence because the psychological laws make it legitimate and because the therapeutic successes justify it.

Several periods are to be distinguished.

#### FIRST PERIOD.

In the evening, when the patient is asleep, I steal noiselessly into his bed chamber. At first I stand a few metres away from the bed and, in a low tone of voice, scarcely audible, in a long, monotonous rhythm, I begin to articulate the two syllables "dormez," "dor mez" . . . which I repeat without any impatience whatever as long as is necessary. Little by little I approach the patient until I reach his ear at a distance of from fifteen to twenty centimetres; meanwhile I do not for an instant interrupt the articulation of my two syllables, in the same slow and monotonous rhythm, in a low tone of voice hardly audible.

#### SECOND PERIOD.

When I am in close proximity to the patient's ear, I continue articulating my two syllables in uniform measures. I maintain the same rhythm, but after the lapse of some minutes, I heighten the tone, my voice augments in intensity, little by little, without a start, without abruptness, without suddenness.

What takes place psychologically?

The auditory sensation, indistinct at first, hardly existing, settles gradually, becomes more and more distinct, reaches the entrance



to consciousness, passes from the penumbra to perfect life and soon attains the vivacity of the imaginative representations of a dream, delirious or otherwise. Then the sensory excitation produced by the repeated monotone does not cease being maintained and becoming progressively augmented; the auditory sensation persists then like an "état fort;" more and more vivid, it becomes preponderant and gradually it reduces the force of the other representations that previously occupied the area of consciousness. These representations become more and more feeble, they become attenuated and disintegrate until they fall submerged and become altogether remote. At that moment nothing remains of this but the auditory sensation caused by the repeated intonation. All other antagonistic representations have been reduced and have disappeared.

#### THIRD PERIOD.

It is known that the consciousness cannot long remain identical to itself; it requires, in a certain sense, the "perception of a difference," else the consciousness, if its contents ceases being distinctively successive and differentiated, soon becomes veiled and dimmed.

Let us then continue repeating the monotone, now not in a progressively increasing tone, but purposely uniform and continuous. From this moment the quantity and quality of the conscious phenomenon does not vary; our simple, homogeneous sensation, fully conscious, will now become less and less conscious, then sub-conscious, that is to say, practically unconscious. At this moment psychic life is void of all contents, so to speak; it has reached a condition of favorable docility, malleability, and receptiveness; our patient has become subject to suggestion, he can be influenced as if he were plunged into a hypnotic sleep. Thanks to this artificial "anideism," one can by suggestion cause a condition of "monoideism," or, to be more exact, a condition of "oligodeism" in relation to the morbid disturbances.

But is one ever certain of having obtained the necessary condition? At what moment is one informed of its appearance? By what traits is one to recognize it?

In order to articulate the syllables after an isochronous rhythm, I make them synchronous with the subject's respiratory movements; in other words, every syllable "dor" is pronounced during every inspiration and every syllable "mez" during every expiration. Following this I have noticed that if after a variable length of time I changed somewhat slightly the rhythm of my words the patient's respiratory rhythm became modified in proportion—that

it accelerated or decreased in ratio with the quickening or slowing of my vocal rhythm.

When I find that I can thus indirectly act on the respiratory movements of the subject I judge that he is "ripe" and ready for the suggestion; the period of preparation is ended and the truly passive phase has commenced.

#### FOURTH PERIOD.

The contents of the curative suggestions vary, of course, with the psychological condition of the patient and the nature of the mental or other troubles. Special suggestions will be used according to the requirements of the case; hence they will not be dilated on here, as the consideration is simply of the general technique.

It is well to call to mind, in this connection, the advice given by August Voisin, in reference to the hypnotic sleep, which advice applies as well to suggestion during natural sleep: "one must proceed slowly—one must not make too many suggestions during one séance, nor run the risk of causing apparent malaise which shows itself by facial contractions." The suggestions must be expressed with distinctness, conviction and authority; in short, they must consist of short, concise, well marked phrases reduced to a strict minimum. Every syllable of every word must be distinct, one from the other, and must be articulated according to the rhythm of the respiratory movement. This rule of synchronism will prevent fast talking and will give the patient a better chance to comprehend all the words spoken and his attention will be fruitfully occupied.

#### FIFTH PERIOD

The end of the séance must not be neglected. We must order the patient not to awake before a given hour, to sleep all through the night very calmly and to dream, during his sleep, of nothing but what has been advised. We must suggest to him that on awakening he will not be tired, that he will be full of energy, that his spirit will be alert and active. This done, he must not be left suddenly; we must retreat gradually, repeating our intonation, this time with a progressively decreasing intensity.

How long should a séance last?

One cannot formulate any precise rule on that point, for the conditions of intervention vary with the subject. The judgment as to the proper duration is left to the discretion of the psychotherapist, who will act according to the requirements of the occasion and as he himself is or is not fatigued or whether the patient remains placid or appears enervated, and whether the preceding sugges-

tions have succeeded well or indifferently, etc., etc.\* In general I may say that a séance, as I understand it, must last not less an one-half hour.

The question of whether séances may be repeated at short or long intervals is a question that again depends on the individual peculiarities of the patient. It is not exaggerated treatment, however, to suggest daily, at least, in the beginning. Later on the intervals may be made longer, according to the gravity or complexity of the disease and also according to the degree of amelioration obtained.

It is customary to call hypnotic suggestion that caused during artificial or induced sleep. I therefore propose the expression "somnic" suggestion for that caused during normal sleep. I am aware that the term is not irreproachable, but it is short and handy and I use it for the want of a better one. I subdivide the "somnic" suggestion into two phases: 1st The presomnic suggestion, and 2d the intersomnic suggestion. The first is made as soon as the patient gets into bed, and before he has fallen asleep; the second is made to a patient awakened by the sound of our voice; the suggestion takes place between two conditions of sleep, the one that we interrupt and the one that will follow after we leave the patient. In both cases, the substance of our suggestions will easily become the subject of a dream. In both cases, also, it is well to close the patient's eyes and to thus invite his psychic activity to concentrate itself on the auditory sense exclusively, through which avenue our verbal suggestion finds its way.

In conclusion, I wish to say a few words to alienists.

There are certain forms of mental troubles the cause of which is principally psychological, which diseases seem to be susceptible to and which improve or even become cured by suggestive treatment. Unfortunately, however, "the insane are not susceptible to hypnotism" seems to be a commonly believed fallacy. That this is a fallacy, August Voisin† has demonstrated since 1880. By dint of patient and persevering work and at the cost of much time he finally succeeded in plunging a certain number of insane into hypnotic sleep, and after having hypnotized them he makes sug-

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\*For details see Paul Farez, on Suggestion During Natural Sleep. Paris, Maloine, 1898, page 23.

†Following in the steps of Dr. Voisin, numerous physicians have obtained success by the use of suggestive therapeutics in the treatment of the insane, prominently M.M. Burkhardt, Buzot, Berillon, Dufour, Von Eden, Farez, Grasset, Von Krafft-Ebing, Ladame, Lombroso, Van Renterghem, Roubinovitch, Repond, Seglas, Von Schranck-Notzing, Tokarsky, and Jules Voisin.

gestions to them whereby he not only obtains amelioration but actual durable cures, thus saving alleged incurable patients from perpetual sequestration. In a paper written in 1889 he cited cases of patients whose cures dated back three, four and even five years; out of twenty-two insane treated by hypnotic suggestion four remained completely cured. At a congress which took place in Munich in 1896 he made the report of forty-two patients successfully treated by that method.

Voisin admitted, however, that he could hypnotize only ten out of every 100 patients. This proportion is large, considering that before this the profession deemed all the insane to be refractory to hypnotism.

It is easily apparent that when an insane patient is openly hostile to therapeutic intervention and obstinately refuses to allow himself to be hypnotized when awake, or, on the other hand, when without presenting obstinate opposition his mind is either too beset or distracted, this method of suggestion is the one to be adopted. The patient should be taken in hand while in his normal sleep and the technique, which must be long, minute and delicate, but, on the whole, simple, must be applied. The suggestion can thus strongly impress the insane patient without having his consent to treatment at a moment when he will attempt to resist: he will be before you calm, tranquil and passive: you will apply to him the moral therapy in security and the application may prove truly curative or simply palliative.

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# A CASE OF VERBAL BLINDNESS AND DEAFNESS AND AN AUTOPSY ON THE BODY.

BY DRS. PAUL SERIEUX AND F. FARNARIER.

Mlle. Z. L., a domestic, 36 years old, was admitted to the Ville-Evrard Asylum September 21, 1898.

Of the personal history we only know that her intellectual development was of an inferior order; she had no instruction when a child and learned to read and write at the age of 25.

The disease made its appearance in 1895 by an apoplectiform attack with complete loss of consciousness. During the subsequent three years (1895-1898) the attacks were renewed and were followed, every time, by a certain degree of obnubilation and functional disturbances of speech, predominating in the auditory sphere (verbal blindness) and lasting a few days at a time. The intelligence was progressively decreasing.

The development of the disease was watched by us for fourteen months; it ended in a series of epileptiform attacks which caused death that was preceded by trophic and generalized paralytic disturbances.

Before touching on the disturbances of the speech we will say a few words about the motor, sensory and mental disturbances.

**MOTOR DISTURBANCES.**—The entire evolution of the disease was especially characterized by numerous epileptiform attacks with complete loss of consciousness and clonic movements of one side of the body, most frequently of the right side. These attacks were followed by a more marked condition of obnubilation than usually existed, a condition of confused agitation, more accentuated disturbances of speech, and a transformation of verbal blindness into total cortical blindness.

Outside of these attacks, there existed a certain degree of spasmodic paresis resembling a hemiplegic form, but the side affected varied with the epileptiform attack; the right side, however, was most frequently affected.

The gait was impeded by this very condition of the spasmodic paresis; the patient was totally incapacitated, however, only during the last weeks of her life.

All the tendon reflexes were much exaggerated; the epileptoid trepidation was usual during the days following an attack. Finally, a few weeks before death there was a tendency to generalized contractures, with permanent trismus, gnashing of the teeth and difficulty in deglutition.

**SENSORY DISTURBANCES.**—The sensibility was always obtuse; pricking, and pinching were felt incompletely, and it was not easy to determine to what degree the intellectual obtusion intervened in the faulty perception or how extensive were the true sensory disturbances.

At all events, the acts of auto-mutilation observed during a long period indicated the existence of impairment of the sensibility to pain. As to disturbances of subjective sensibility—let us note that from time to time the patient had sensations of being wet.

The special senses were little affected; the sight was intact (verbal blind-



ness was nevertheless permanent and almost complete) and the hearing was good, except on the days that followed the attacks. We could not investigate the condition of the gustatory sense (much impaired, no doubt, as the patient presented intermittent coprophagia). The sense of smell was little affected, for the patient recognized the smell of eau de cologne.

**DISTURBANCES OF THE INTELLIGENCE.**—The psychic faculties were much impaired. Nevertheless, this condition of mental enfeeblement, analogous to that of general paralysis or cerebral syphilis, was not so pronounced as to preclude an examination and to render the patient unconscious of her condition. Consequently, the information obtained (which was verified at times) retains its value. She was in a depressed mood and highly sensitive; at times, particularly after the attacks, she manifested highly marked automatic agitation. Finally, she seems to have had some elementary melancholy ideas: she would assert that she was going to die or that she was dead.

The disturbances of speech, the most marked symptoms, consisted essentially in sensory aphasia (verbal deafness and blindness with jargonaphasia).

**VERBAL DEAFNESS.**—This dominated the whole pathological scene and, at first sight, the patient could have been taken for a deaf person. Nevertheless, it was easy to see that she could hear (at least the greater part of the time) the sound of the voice, the noise of a bell, and the tick of a watch. She could not, on the other hand, understand the simplest question; she could not understand such simple phrases as "Give me your hand;" "Show your tongue;" "Stand up;" "You can go." She could not recognize her own name when it was pronounced.

Nevertheless, the verbal deafness was not always quite so marked, and at times the patient seemed to understand certain words. Thus (on December 7, 1898) she was told: "Put your hand on your hair." She recognized the word "hair," and answered: "I had much hair, but it has fallen out." And at another time: "Can you sing?" She replied: "Yes, I sang when I was young, but I cannot do so now."

On days following an attack, on the contrary, not only is the verbal deafness complete, but the sounds even are not comprehended. These transitory spells of cortical deafness led us to the hypothesis (which was confirmed by the autopsy) of the existence of a symmetrical lesion of both temporal lobes. This condition of total deafness became permanent towards the end of October, 1899, one month before death.

**VERBAL BLINDNESS.**—Throughout the evolution of the disease the verbal blindness, even that of letters, was absolute. In the very beginning only some ciphers could be recognized; on November 20, 1898, the patient could recognize "2," and after much hesitation "3." On the other hand, letters were not recognized, and the patient made no remark when a printed page was shown her with the letters upside down.

There was no psychic blindness. She recognized her employer, who visited her, almost to the end; at different times she recognized various objects shown her: a fork, a bell, biscuits, a doll, etc.

**THE SPOKEN LANGUAGE.**—The following disturbances were observed—a reduced vocabulary, periphrases paraphasia, jargonaphasia, and (rarely) echolalia.

The spontaneous speech was always influenced by the epileptiform attacks and reduced, during the hours following, to some unintelligible mono-

syllables (be-be-be); the words which she was well familiar with, however, she could pronounce correctly: "I am deaf," she often repeated; "No, let me alone, you worry me;" "You hurt me" (while the sensibility was examined); "It is a little letter" (when shown cipher figures); "It hurts, cold water, it is all wet," etc.

**PERIPHRASES AND PARAPHASIA.**—She was usually unable to name objects shown her, although she recognized them. Thus, she said: "Camisole" . . . "to amuse one's self," when a cake of soap was shown her; "To cut camises, things," when scissors were shown her: "To brush," when a brush was shown; "It smells good," when asked the name of eau de cologne; "To soap, soap," when shown knitting wool.

At times she used paraphrases: "To sit down," when shown a chair; "To see the time," when shown a watch; "To lie down," when shown her bed; "For the soup," when shown a spoon. On December 12, having been free from epileptiform attacks fourteen days, she correctly named a lead pencil, keys and a fork.

Finally, there was a certain degree of jargonophasia (*cormière, bonoure\**), and at times echolalia. Besides, from February, 1899, the vocabulary became reduced to some words devoid of any sense which the patient used on all occasions: "Well, well . . . little," and even then the words were pronounced unintelligibly.

**HANDWRITING.**—She could write, but it was impossible to obtain a specimen of her writing either because of the paresis and the spasmodic phenomena which predominated on the right side, or because of the verbal blindness (*agraphia of sensory origin*), which is more probable.

During October, 1899, trophic disturbances made their appearance: a true muscular melting, pemphigus blisters, on the hands at first, then on the heels, and, finally, two extensive ulcers, one on the right nates, the other over the great trochanter of the same side.

Death in November, 1899.

**AUTOPSY.**—Very marked atrophy of the brain, particularly of the left hemisphere (left hemisphere, 395 grammes; right hemisphere, 410 grammes). The loss in weight of both hemispheres can be estimated as amounting to about 300 grammes.

**THE ATROPHY.**—In the left hemisphere it is particularly marked in the frontal and the temporal lobes, the convolutions of which are very much wasted, some being reduced almost to mere lines (*microgyri*); resistant to touch but without other modification visible to the naked eye. The temporal lobe, much reduced in volume, leaves uncovered the insula, and shows a progressive wasting from behind forward; its anterior extremity is reduced to a sort of a small tongue-shaped form. The first temporal measures hardly 5 millimetres in thickness. The deep temporal is also much wasted. The supra marginal convolution and those of the *gyrus angularis* are also touched by the atrophy, though to a lesser degree.

The consistency of the atrophied parts is firmer than in the normal state.

The meninges are somewhat opaque over the paracentral lobules and the upper part of the Rolandic convolutions. The pia mater is easily detached, except at the posterior part of the second and third temporal convolutions, where slight adherences exist.

**RIGHT HEMISPHERE.**—The atrophy is similarly distributed, but is less

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\*These words are untranslatable for obvious reasons.—Translator's note.

marked, particularly over the temporal lobe; the frontal lobe is more wasted than on the left side.

There are marked granulations in all the ventricles.

The spinal cord seems normal to the naked eye.\*

RÉSUMÉ.—From an anatomical point of view: atrophic cerebral sclerosis, probably diffuse (ventricular granulations, loss of weight of 300 grammes), but with predominance in the temporo-frontal lobes; the localization corresponds with the observed symptoms. The temporal lobes, atrophied en masse, are reduced to almost half the normal size.

This case is interesting: (1) From the standpoint of localization of sensory aphasia; (2) in the fact that it constitutes an exceptional example of a case of aphasia due to atrophic cerebral sclerosis, and (3) as a contribution to the history, scarcely known, of symptomatology of cerebral sclerosis in the adult.

Cases of aphasia due to atrophic cerebral sclerosis are exceptional.

Let us call to mind that one of us reported an analogous case the symptomatology of which was, however, far from being as complex as in this one, for the other was one of PURE VERBAL DEAFNESS. The autopsy revealed an atrophic lobar sclerosis strictly limited to the temporal lobes of both hemispheres (lesions of chronic polyencephalitis).

#### REMARKS BY PROF. JOFFROY.

In this case the topography and the great extent of the lesions have some analogy to what is observed in general paralysis.

#### REMARKS BY M. DEJERINE.

The hypothesis of general paralysis must be eliminated, as there is no trace of meningeal adherence in the brain.—(*Bulletin de la Société de Neurologie de Paris*, February 1, 1900.)

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\*Dr. Dejerine will examine the specimens. The case is probably one of diffuse atrophic sclerosis.

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Original researches and other MSS. will be carefully considered, and if  
found unsuitable will be returned, if accompanied by stamped, self-  
addressed envelope. News items from Institutions will be given all space  
available.

## PSYCHIATRY IN THE TWENTIETH CENTURY.

To trace the history of psychiatry it is necessary to turn to the  
other side of the Atlantic. Broadly, the history of psychiatry may  
be considered as being composed of two parts: the scientific and  
the practical. So closely are these two interwoven, however, that  
it would be difficult to treat of the one separately from the other.

Pre-eminent among the alienists, of course, is Philippe Pinel; a  
century ago he dared proclaim his belief that chains were not the  
proper habiliments for the insane, and this belief he carried into  
practice. His characterization of the manacle stands unrivaled as  
an epitome of all the arguments on the subject, for he entirely  
summed up the situation when he described this instrument of the  
restraint as "that admirable invention for perpetuating frenzy in  
the maniac."

Modern thought in psychiatry may be said to have had the con-  
ception at that time; of a sudden the insane became objects of in-  
terest and of study. Quite naturally the medical literature of this





# TYPOGRAPHICAL ERRORS.

*Editorial Articles.*

Page 44.

6th line from bottom of page: word "the" should be stricken out.  
3d line from bottom of page: word "the" should read "its."

Page 45.

Last line: word "unreasoned" should read "unreasoning."

Page 48.

Line 30: "halucinations" should read "hallucinations."

initial period teemed with discoveries of new denominations of diseases observed, and even the most scholarly observers were carried away with the congenial task of the fabrication of monomanias; syndroms of diseases were taken for the disease itself. As time wore on, however, the enthusiasm in this direction exhausted itself and closer application to the study of mental science brought the workers in this field to the realization of more exact conclusions as to the nature of insanity and the proper method for considering its syndroms. The studies of Morel, Falret and Lassègue in France, and of their contemporaries in other countries marked the period of the wane of the nomenclature of monomania, and to-day, with the admirable work of Magnan in France, Kraft-Ebing in Austria, Kraepelin in Germany and others elsewhere the irrepressible monomania of old has become not only a relic of an antiquated nomenclature, but entirely obsolete as a scientific term among psychiatrists.

Clinical research has forced the students in alienism to realize that the major portion of the forms of mental disease go hand in hand with heredity, and so potent did this fact become that the coining of the term "degeneracy" became necessary to supply a word that would specifically cover the condition sought to be described. The study of degeneracy was well covered by Morel, Lassègue and others; but the honor of having given to the world the keenest insight into the practical working of heredity is due to Magnan. Starting with the lowest denomination in the mental scale, idiocy, and ending with the highest, the superior degenerate, his classification follows, step by step, plainly exposing and analyzing the various degrees, the intensity and the complexity of the manifestations of degeneracy.

He has demonstrated that the stigma of psychic weakness marks this great class of insane, a weakness which seldom fails to manifest itself by complete abandonment of resistance, either during childhood or adult life, under stress of circumstances of a more or less marked degree. Another part of this system of classification is that based on anatomo-pathology and, finally, come the neuroses. No less valuable is Magnan's study on alcoholism and its relation to mental diseases, and this line of research must serve as a new source for development of thought and action in the field of psychopathology.

The practical application of the theories involved during this purely scientific progress in mental science has kept pace with the new ideas. If the chemical restraint that followed the abandonment of the manacle was abused by some, the abuse was due to an erroneous application of unreasoned zeal, and while the majority

of alienists were inspired to follow out literally the details and methods of the French school, Guislain made a new departure, and in 1852 was the first one to record the results of what is now known as "bed treatment." It was his contention that the great benefit derived by the melancholiacs from this method of treatment could hardly be appreciated. Hagen seconded this opinion in 1853, adding, however, that the maniac also derived great benefit from this treatment, and Schlager and Griesinger in 1861, and Koeppel, as well as Falret in 1864, bear witness to the efficacy of this system, the last named asserting that he found the method very beneficial in cases of mania with semi-febrile conditions. While the method failed to receive a very enthusiastic welcome at the hands of the profession at large, it was quite extensively employed by physicians in various countries, particularly in Germany. During the last few years this mode of treatment has ceased to be an experiment and is now an established part of hospital régime; it is no longer a means employed in isolated cases, but is an absolute necessity in almost all cases. The late Korsakov in Russia, Clemens Neisser in Silesia, and a host of others have established beyond question the adequacy of this means of treatment. Introduced in its present form by Magnan in France, the results were so satisfactory that Professor Joffroy soon adopted the system of bed treatment, and many others have followed. Some American alienists have taken this matter up and have demonstrated the efficiency of this mode of treatment, the effects of which have been so long favorably known as applied to the treatment of neurasthenia: as witness Dr. Weir Mitchell's rest-cure as applied to cases other than the insane.

Justly speaking this country has not yet given birth to any "school" of psychiatry. Nevertheless, this science is taking root here; already a few earnest students may be found among the younger men in New York, Philadelphia, Baltimore and Boston, and the prophecy may be ventured that good results are confidently to be expected in the near future. From a practical point of view there are, beyond question, many things to which the profession in the United States can point with pride, and it cannot be long before scientific research and experiment will take its proper place in this country. The twentieth century is undoubtedly fated to produce much in the way of discoveries in the almost untrodden wilderness of psychiatry. The importance of the study of the diseased mind is becoming more and more appreciated here; and it will not be long before the many obstacles that have been put in the way of psychiatric research will be removed as ignorant opposition on the part of the uninformed disappears.

ON THE QUESTION OF WOMEN ATTENDANTS IN THE MEN'S WARDS  
FOR THE INSANE

The recent alleged scandalous occurrences at Bellevue pavilion for the insane, New York, involve two practical questions, both of which are of living interest. One is of a purely political nature and cannot be discussed here, while the other is of scientific interest—touching on the possible means of protecting the insane.

There are few physicians working in the field of insanity who are not alive to the great difficulty encountered in the treatment of the patients: their maltreatment by the attendants. The evil has always existed, but every now and then there is a fresh outbreak of demonstration against it. Investigations follow, then such feasible changes for the improvement of conditions are made as are consistent with the policies of the existing administrations and finally the cause falls into its usual state of obnubilation, until a new series of shocking occurrences draws the attention of the public eye. While this evil applies to both the men and women patients, those who have followed out the question for any number of years will recall that the particular sort of abuses in question are brought to notice first from the men's wards—where there are men attendants. It is this side of the question that appeals most strongly for consideration and solution.

The question of having women nurses to attend to men insane has been brought up at various times within the last few years as a sheer thought: a problem—so to speak—the physician hesitating to take any decided step in the direction, for many reasons that impose themselves on the mind traveling in the deep groove of routine. Conservatism is an excellent thing in many lines of business, but there are conditions in which radical remedies are the only ones feasible. The placing of women nurses in the wards for insane is a consummation most devoutly to be hoped for. Indeed, some practical work already done in that line warrants the formation of a most positive conclusion regarding the practicability of this innovation in the treatment of the insane.

A few years ago the administration at the Philadelphia City Hospital tried an experiment in that line that proved most successful. The male attendants were displaced by women nurses in the alcoholic wards, with the hope of doing away with just such rough and cruel handling of the helpless patients as is alleged to have taken place in the insane pavilion at Bellevue Hospital. The experiment was made with that feeling of fear of failure which attends most innovations of this character, but the apprehensions were soon dissipated. Not only was it found that the delirious alcoholic patients could be treated without being beaten, as it was



claimed the male attendants found it necessary to do in self-defense against the patients' violent behavior, but the patients were found by the women nurses to be very easy to handle. And the writer recalls that while in charge of the medical wards which included the alcoholic, the nurses considered it a desirable assignment to be sent to the alcoholic ward in preference to working in the general medical wards.

To revert to the general question of the attendance of the insane by women nurses: while no substantial information to uphold this argument may be had at present, there seems to be no lack of reasoning to warrant a trial of this system.

At the leading European asylums for the insane, in Paris, as is well known, the wards for both sexes are open to women physicians and the experience of the writer during some three years of attendance there showed that it was only on two or three occasions during this entire period of every-day visits that a patient became excited or violent because of her presence, and those cases were patients suffering from general paralysis. Incidentally, it may be mentioned that the wards referred to were occupied by violent patients, undergoing the "bed treatment." In many instances, indeed, the presence of a woman in the ward had a quieting effect; often, when one of the patients became excited, another one would call to him, or go to his bed and endeavor to quiet him because of the presence of a woman in the room.

The alcoholic ward was not separate from the others in this institution, and observation in that line leads to the conclusion that there are few delirii so easily soothed by kind words and treatment as are those caused by alcoholism. A woman is never more in her proper sphere as a nurse than when reassuring a delirious alcoholic that the bleeding heads in the air are only hallucinations, that the ferocious beasts attacking him in the depth of the lonesome woods are the creations of his own mind and that the axe hanging over his head has no existence in fact.

The claim is not made here that men attendants should be done away with entirely; it would seem reasonable, however, to introduce women attendants to as large a degree as possible, retaining the men here and there where they are deemed to be indispensable. If every other consideration be put aside, this one must still prevail, that the mere constant presence of women in the wards would act as a deterrent, so that those acts of brutality which necessarily characterize the stern masculine administration to a greater or lesser degree would become things of the past in the history of insane asylums.

**THIRTEENTH INTERNATIONAL MEDICAL CONGRESS, PARIS,  
1900. SECTION OF PSYCHIATRY.**

**THE PATHOLOGICAL ANATOMY OF IDIOCY.**

G. E. SHUTTLEWORTH, M.D., AND F. BEACH, M.B., F.R.C.P.

The history of the disease is given, beginning with the days of Hippocrates and ending with the most recent times: Modern authors are of the opinion that pathology and classification are mutually interdependent. According to this view, the anatomo-pathology of idiocy is classified under three chief heads, viz.:

I.—Congenital formative defects;

II.—Developmental cases;

III.—Acquired cases.

Under the first head are placed (1) microcephalus; (2) hydrocephalus; (3) scaphocephalus; (4) Mongol imperfections of the osseous, cutaneous, mucous and, in some cases, cardiac tissues; (5) neuropathic genetous cases, in which the convolutions are coarse and simple, or are small, slender and curling (microgyri); (6) amaurotic genetous cases; (7) sporadic cretinism, due to defective structure or absence of the thyroid gland, and (8) partial local defects, such as defect of the corpus callosum, or porencephalus. Under the second head are included (1) eclamptic cases with hæmorrhagic or inflammatory lesions; (2) epileptic cases; (3) syphilitic and juvenile general paralysis cases, and (4) paralytic cases, in which there are degenerative changes in the vessels of the brain, or, in some cases, atrophy of the brain. These cases may be due to birth palsy, to palsy coming on after whooping cough, or to inflammation. Under the third head are comprised (a) traumatic cases, due to pressure on the head during labor owing to abnormal narrowness of the pelvis, prolonged labor, or less often the use of the forceps, and lesions produced by accidents; (b) post-febrile inflammatory cases (under this sub-head is placed hypertrophic idiocy), and (c) sclerotic idiocy, a disease first described by Bourneville in 1882. The changes in the brain observed in this disease were noted by Dr. Wilmarth in 25 out of 100 cases, and have been noted frequently by Beach, who cited additional changes: hyperæmia, softening, tumors and diseases of the membranes of the brain; assymetry of hemispheres and convulsions; alterations in relation of gray to white matter of the brain; simplicity of convolutions, thickening of the arteries, thrombosis, disease of the cerebellum and spinal cord and anomalies of the convex surface and base of the cranium (in Tuke's Dictionary of Psychological Medicine, 1892).

DR. BOURNEVILLE.—The researches on idiocy or rather the idio-



cies, during the last twenty-five years, both at the Salpêtrière and the Bicêtre asylum lead the author to distinguish from an anatomopathological view the following varieties: 1. Idiocy symptomatic of chronic meningitis (meningitic idiocy). 2. Idiocy symptomatic of chronic meningo-encephalitis (meningo-encephalitic idiocy). 3. Idiocy symptomatic of an arrest of development of the convolutions without malformation, with cellular nervous lesions (congenital idiopathic idiocy). 4. Idiocy symptomatic of hypertrophic or tuberos sclerotic. 5. Idiocy symptomatic of atrophic sclerosis: (a) sclerosis of one or both cerebral hemispheres (hemispheric or di-hemispheric sclerosis); (b) sclerosis of one cerebral lobe (lobar sclerosis); (c) sclerosis of isolated convolutions; (d) granulated sclerosis of the brain (?). 6. Hemispheric or paralytic idiocy symptomatic of focus lesions due to a vascular obliteration or a hemorrhage (pseudo-porencephalus, etc.). 7. Idiocy symptomatic of simple ventricular hydrocephalus or complicated with extra-ventricular hemorrhage (hydrocephalus idiocy). 8. Idiocy with pachydermic cachexia or myxoedematous idiocy, in connection with the absence of the thyroid gland. 9. Idiocy symptomatic of an arrest of development of the brain with congenital malformations (true porencephalus, absence of the corpus callosum, etc.). 10. Idiocy symptomatic of microcephalia due to arrest of development with or without malformations, or having for causes lesions that took place after birth (micro-cephalic idiocy, properly speaking, or symptomatic). The author has not found any case of idiocy that could be ascribed as due to osseous lesions, particularly to a premature synostosis of the cranial bones.

DR. J. MIERZEJEWSKI.—Dr. Bourneville's classification of the forms of idiocy answers the practical side of science; but the anatomopathological classification based on the study of the delicate structure of the nervous tissue and its elements, and on precise embryonic knowledge, will become necessary with the progress of science. The basis of all anatomical lesions of the brains of idiots consists in a deviation of development of the nervous tissue; this deviation must be traced to the embryonic life or to the pathological lesions which take place during early infancy, and which become the starting points of the deviation of ulterior development. There is no true arrest of development in the morphological and histological sense of the brain in its entity, but there is a true arrest of development of certain regions of the cerebral tissue which can be found by the presence of neuroblasts. Among the brains of idiots who belong to this category, whose delicate histological nature is best known, and which may be considered as a special group by virtue of its characteristics, there are brains the

white cerebral matter of which is very little developed, whereas the gray cortical substance is prodigiously abundant. These brains, which are found in the micro- and semi-microcephalic idiots, generally present a micro-gyric arrangement of the convolutions, but this is not an absolute rule (case of Meine, Matell). The first case described was that of the author, which he presented at the International Congress at Geneva, in 1877. Other cases were published later. A histological description of the brains of idiots is given and it is concluded that: Richness in gray matter and abundance of nervous cells are compatible with idiocy; but in such cases the system of connecting elements of the convolutions is arrested in development; this absence of communication, this lack of harmony in the development of the different nervous elements, make imperfect an organ rich in some respects and so poor in others. But in the central nervous system everything depends, not on the quantity, but the quality of the elements and their reciprocal combination. So that the white matter is nothing but the continuation of the processes of the nervous cells. Thus the richness of dendric ramifications and those of the axis-cylinder of these cells favor the abundant development of the white substance, and the paucity of these ramifications makes its development insufficient. In the brains where the white substance is little developed, the nervous cells must be poor in prolongation processes and the functional activity of the cells enfeebled or annulled. The multiplication and large extent of the connections of the pyramidal cells seem to be the principal conditions of intellectual manifestation. But intellectual supremacy seems to be not so much the result of the number as of the multiplicity and the extent of the connections (Dejerine). Consequently, richness of nervous cells can coexist with idiocy, if the cells are devoid of their multiple and extended ramifications. It is thus that there is a lack of the avenues through which take place propagation, accumulation and combination of the nervous forces. The abundance of the larger of neuroblasts in the hemispheres of idiots, which indicates true arrest of development of certain parts of the cerebral tissue, causes, doubtless, the insufficiency of functions of the nervous system in intellectual manifestation. But, under favorable circumstances, the neuroblasts can perhaps become transformed into elements of higher order—that is to say, into nervous cells. In the larger of neuroblasts are sometimes found polymorphous cells. The neuroblasts remaining in their embryonic form, and in a condition of functional lethargy, may, under the influence of a propitious impulse, become transformed into nervous cells and thus elevate the cerebral functions. This explains, perhaps, the cases of profound and

## TYPOGRAPHICAL ERRORS.

### *Editorial Articles.*

- Page 44:  
6th line from bottom of page: word "the" should be stricken out.  
3d line from bottom of page: word "the" should read "its."
- Page 45:  
Last line: word "unreasoned" should read "unreasoning."
- Page 48:  
Line 30: "hallucinations" should read "hallucinations."

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The practical application of the theories involved during this purely scientific progress in mental science has kept pace with the new ideas. If the chemical restraint that followed the abandonment of the manacle was abused by some, the abuse was due to an erroneous application of unreasoned zeal, and while the majority

hopeless idiocy, in which there is sometimes a notable improvement in the intellectual faculties, the idiot seeming to wake up from a prolonged sleep, although he retains for life the stigma of psychic infirmity in a less marked degree.

**ON THE EVIDENCE OF THE GOLGI METHODS FOR THE THEORY OF NEURON RETRACTION.** RICHARD WEIL and ROBERT FRANK.

Neuron retractability is regarded by the majority of observers as a function of the protoplasmic processes, and is best manifested by the pyramidal cells of the cerebrum and the PURKINJE cells of the cerebellum. Two changes are said to occur: First, the appearance of localized swellings or "varicosities" along the course of the dendrites, and second, the disappearance of the gemmules, or dendritic spines, at the site of these swellings. The two phenomena are supposed, except by LUGARO, to be correlated. The spinous processes withdraw into the body of the dendrites and by so doing produce a localized swelling. Human and experimental material of the greatest diversity has been investigated: of the former, brains of diphtheria, typhoid, insolation, etc.; of the latter, brains of animals poisoned by arsenic, lead, morphine, strychnine, chloroform, tuberculosis, hydrophobia, experimental strumapriya, "experimental uraemia," etc. The method employed has always been the rapid GOLGI (or CAJAL) method, except in the case of certain recent works of LUGARO's, who has employed Cox's modification of the corrosive method. Criticism of the conclusion above stated has not been lacking. Both gemmules and varicosities are by some authorities considered to be artifacts; others, like LUGARO, while admitting their occasional authenticity, attribute a variable proportion of their number to post mortem processes. LUGARO asserts that the only form of the GOLGI method which does not exaggerate the true number of varicosities is the Cox modification.

In this investigation four forms of the GOLGI method were made use of, the rapid, mixed and slow modifications of the bichromate-silver method, and the Cox modification of the corrosive method. The number of animals used was forty-three. There were five cases of human material, three adults and two fetuses; one dog and thirty-seven rabbits. Of the rabbits ten were normal; of the remainder, two were poisoned by morphine, one by strychnine, four by chloroform and the rest by the injection of hypertoxic urine or serum. Nine of the rabbits were treated uniformly according to four methods, the three bichromate-silver modifications and the Cox; two were treated according to the rapid GOLGI method and the Cox; the rest according to the rapid, mixed, or slow procedure alone. In all, 342 pieces were sectioned. The cerebral cortex alone was studied.

The conclusions reached are as follows:

1. The same material, when treated by different methods, yields different results. The nature of the differences in each kind of material is as follows:

All material treated according to the slow method of GOLGI shows, as a rule, an almost absolute freedom from varicosities; varicose cells occasionally occur, but with a relative frequency which is perhaps not greater than a fraction of one per cent. of the total number of pyramid cells impregnated. Exceptionally, a large proportion of varicosities occurs.

The mixed method and the rapid method may be considered together. These two methods yield practically similar results as regards the varicosities and the gemmules. The gemmules are almost invariably present and are generally regular, provided the dendrites have taken the impregnation. The varicosities occur in variable proportions. Altogether, their frequency is generally greater and it is almost always very much greater than in the slow method. In some sections almost every dendrite is varicose, in others hardly any.

In the Cox method a fair amount of varicoseness is generally present at any stage of fixation. Gemmules are almost universally present and regular.

2. The above results are independent of the nature of the material, whether normal or toxic. Normal material, as well as the toxic, is, as a rule, free from varicosities when treated by the slow method. Normal material, as well as the toxic, exhibits a variable amount of varicosity when treated by any of the other three methods we have used. We find that it varies within exactly the same limits as the abnormal; that every degree of varicoseness can be illustrated with equal freedom from either, and finally, that it is impossible for an unprejudiced observer to differentiate or distinguish between the two kinds of material.

3. The same material does not yield constantly identical results when treated by one and the same method. Pieces from the same animal, when immersed in the same fluids of the slow, mixed, rapid or Cox method, may illustrate the extremes of varicoseness produced by that method.

The above conclusions seem to demonstrate that the varicosities are to be regarded as artifices of the GOLGI method. (*Archives of Neurology and Psychopathology*, Vol. 2, Nos. 3-4, 1899.)

#### **CONTRIBUTION A L'ETUDE DE L'ETAT MONILIFORME DES DENDRITES CORTICALES. (CONTRIBUTION TO THE STUDY OF THE MONILIFORM CONDITION OF THE CORTICAL DENDRITES.)**

DR. T. GEIER, *Physician to the Moscow Clinic of Psychiatry.*

Authors differ in opinion as to the significance of the varicose condition of the dendrites, as well as to the conditions under which the moniliform changes are produced. Most authors hold that the inhalation of narcotics—chloroform, ether, etc.—have an influence on the cortical nervous cells that causes swellings of the dendrites. While DEMOOR, MELLE, STEFANOWSKA, HAVET, and others are disciples of the narcotic influence theory, others, like LUGARO, SOUKHANOFF, etc., affirm that these inhalations have no influence on the moniliform formations in the dendrites. The author experimented on animals, using ether and chloroform. The brains were examined by means of the rapid GOLGI-RAMON Y CAJAL method; all specimens were treated alike, two days in a mixture of osmic acid and potassium bichromate, and one day in a solution of nitrate of silver (0.75 per cent.). The specimens were examined under a lens enlarging 500 to 900 diameter. Eight experiments were made in all and the conclusions were:

(1) In the cerebral cortex there are nervous cells of spherical or oval shape; in the normal state their protoplasmic prolongations have no collateral ramifications, the main prolongation presenting in its whole length



small swellings. These cells, it seems, must be either GOLGI cells of the second type or cells of CAJAL or cells of MARTINOTTI.

(2.) The granular focuses observed by Melle. STEFANOWSKA, identical with our network of fine filaments with small swellings, must not be considered as ordinary moniliform conditions. We think that these granular focuses consist of protoplasmic prolongations of the above-named cells and the normal axis cylinders with the ramifications.

(3.) Even profound etherization and chloroforming do not cause a moniliform condition of the dendrites.

(4.) The moniliform condition cannot be considered as an expression of the plasticity of the dendrites.

(5.) The moniliform condition is either an expression of a pathological state of the cells or of its exhaustion.

(6.) In the experiments where chloroform and ether are used for the purpose of determining whether these narcotics are responsible for the moniliform formations in the dendrites, one must choose the animals for experiment carefully, paying particular attention to their physical condition. (NEVRAXE, February 7, 1901.)

#### L'INDIVIDUATION COLOREE (COLORED INDIVIDUATION).

P. SOKOLOV. Four cases are reported, of which two are types of what the author terms "colored individuation." One patient, 30 years old, with no morbid hereditary taint, but of a nervous temperament, has since early childhood, had a tendency to characterize those whom she knew by certain colors; a given person was gray and green, another blue and lilac, etc. As she grew up this tendency became transformed into a habit, and now her best means of representing to herself the merit or demerit of any one she meets is by colors. Great men deserving much esteem evoke in her a representation in color, which to her corresponds to the mental conception. Thus, instead of representing to herself in her mind the word-picture of a particular great man she expresses that conception to herself in the form of a dark blue cloud, bordered with purple and red. A personality of equal greatness, but lacking in firmness, evokes in her the equivalent representation in a cloud—dark red or red tinged with purple (as are the borders of the first cloud), but the centre of the cloud is blue. As the quality of the individual becomes more removed from the ideal of the great man the symbolic color of the cloud (blue) becomes lighter and lighter, until the color itself is changed. That color may have all possible shades of various colors, excepting black and white. Yellow is a color representing the conception of the worst type of personality: absence of brilliancy of mind and of moral principles. She does not know in what color her own personality is represented, but women, with few exceptions, evoke in her the equivalent representation of yellow. She explains this harsh judgment of her own sex by the fact that most of the women of her acquaintance are of no importance as a social element in her circle. These chromatic visions are visible to her: Every colored cloud floats before her eyes in the air, assuming the configuration of Africa. The height of this colored Africa is about one and one-half metres and the breadth is one metre. The cloud is so thick that nothing can be seen through it. But, she explains, the cloud does not obscure her vision of anything placed beyond the cloud; she sees psychically only. She expresses in colors

only the intellectual and moral qualities of people. Their exterior appearance does not evoke in her an equivalent colored perception. In order to have the color representation she must first have an opinion of the person's qualities, speak to him, or at least hear him. What is curious in this case is the fact that her first COLORED impression never changes; it may change in shade as she becomes more familiar with the person, but the fundamental color remains unchanged. So soon as the color becomes a sufficiently fixed representation she can never see or think of that person without that cloud of color being evoked in her mind. The only change in the chromatic representation that has been noticed during the last few years is that the colored cloud symbolizing the individual appears larger and at a greater distance than it was formerly. She sees the cloud two metres behind and somewhat to the right of the person whose qualities it represents in color. Besides the chromatic representation of individualities she also colors, to a certain degree, vowels.

The second case is a lady, 45 years old. She was guided in the beginning by chromatic representation in reference to the moral character only. Certain actions of persons she called WHITE, BLACK, RED, GREEN and VIOLET. Later, however, she began to symbolize chromatically the whole individuality. She must first be familiar with the personality, the individual character of which she formulates chromatically. When the corresponding color symbol is well fixed in her mind it only changes in shade according to the humor in which that person happens to be. She expresses, for instance, two harmonious spouses by the colors rose and greenish; the harmony of these complimentary colors expresses mutual accord. These colors change as soon as she imagines the couple to have quarreled, the rose becoming of a loud hue and the green assuming a metallic tint disagreeable to the eye. In her case, there is a point of interest in this colored individuation. It consists in her ability to mentally translate color into individuality. Thus, when shown Plate XXVII of LACOUTURE'S chromatic repertoire, which shows a combination of various shades of violet-blue and black, she said that with the addition of a little red the colors would represent to her two intimate persons, such as two spouses, or parents, between whom excellent friendship could exist. She often solves the problem of cause and effect regarding certain acts in persons whom she has symbolized chromatically. When a certain act on the part of a thus symbolized personality is incomprehensible to her, she brings into play the fundamental symbolic color in its various shades and tries to draw conclusions therefrom. This represents, the author says, a true type of concrete thought, in the shape of color-ideas, using chromatic symbols in a manner almost identical to that in which ordinary thought makes use of words.

This case, like the first one, symbolizes great men, honest and firm of purpose, by blue. People of moderate intelligence, but kind, honest and of lively temperament, are symbolized by lilac. This color pleases her most, and she appropriates it to her own personality. Energetic people, endowed with logical sense, active, and at the same time devoid of egotism, she symbolizes by red. The same type of personality, but egotistic, she symbolizes by orange color. Yellow represents, according to the shade, people of tender and sweet disposition or people changeable, effeminate and vapid. People most disagreeable to her are sym-

bolized by a metallic green color. Such people are mischievous, vindictive and sly. These chromatic qualifications express only an approximate appreciation of leading characteristics. This case, like the other, symbolizes by color psychic characteristics only, leaving out the exterior appearance. She says: "Color resembles a man; it has a soul, and this soul can be in harmony with that of the man. There is a kind of internal affinity between them, and in order to find this affinity it is necessary not only to represent the color to one's self, but also to FEEL it."

This faculty to symbolize by color has grown weaker in this case within the last four years, for, as she explains it, she has not as much leisure time now as she had formerly. She also symbolizes by color music and general ideas. Strength is red, law is blue.

The sister of the first case, thirty-two years old, symbolizes by color vowels, the human voice, music, etc. POUSSKIN's poetry she characterizes by pale rose color; HEINE's, loud red; GOETHE's "Faust," steel blue; TOLSTOI's works, orange yellow; TOURGUENIEV's, pale blue, etc. This patient is the only one of those cited who has been suffering from mental derangement, the last affliction manifesting itself only recently.

A fourth case, a man, 29 years old, colors vowels, the human voice, notes of the scale, the timbre of musical instruments and particular persons.

It seems that in cases like those above cited the mind is absolutely concrete, incapable of pure abstract thought, translating thought into intuitive and sensory form. Such a mental state, extremely favorable to the development of idiosyncrasies, analogous to colored hearing, implies, no doubt, some anomalies of a hereditary nature. Nevertheless, the chromatic representations of individualities can be compared to ordinary visual metaphors by means of which we characterize qualities of men's actions; in both cases the representations must be of an emotional nature. Thus we say that people and things appear to us under different "colors," in "rose," or "black;" we say, for instance, "a clear" or "scintillating" mind, a "sombre" nature, a "dull" thought, a "pale" expression, a "radiant" appearance, a "brilliant" orator, etc.

Psychologically, the phenomenon of such illusions or colored individuation is thus explained: The principal cause of that phenomenon must be looked for in the association by resemblance; not by resemblance of qualities, but by resemblance of relations, of ideas, of emotion. Two perceptions or images, having qualities of an entirely different nature, may be brought together in our mind when they are united by a certain general idea to which they have an analogous relation. This is the principle of association by resemblance of idea-relation. In the first case cited heavy colors are associated with the idea of a great man; the symbolic color of mind becomes lighter as the individual's mind is of less weight. It is evident that she sees an analogy between the condensation of color and concentration of intellectual and moral qualities of a man. Two diametrically different images are here brought together: that of color and that of man.

Association by resemblance of emotional relations is perhaps of still more importance here. Two perceptions or images totally differing in their qualities may be united in our thought, if they call forth analogous sentiments. Thus the second case states that there is a sort of mysterious affinity between man and color, and that the latter must be

"felt." Psychologically the simple sensations of the pleasant and unpleasant play an important rôle here. This same case associates lilac, her favorite color, with the notion of moral and intellectual people among whom she would count herself. Green, the color of a snake, evokes the idea of an undesirable character.

The colored symbolizing of vowels, etc., is explained in an analogous manner: A vowel is represented in the mind by a sound, image, a graphic sign, etc.

All these elements, accompanied by a series of emotions hardly perceptible, constitute a whole and characteristic "being" according to the expression of one of FLOURNOY's cases, or an individual synthesis, as I should prefer to call it. In a child, particularly, the simplest way of symbolizing this is by the use of chromatic association. In all cases, chromatic symbolism persists as long as it fulfills a useful function in thought—the latter being symbolic by its nature; the colored symbolism disappears on becoming superfluous—it then becomes atrophied and exists in a rudimentary state only. (*REVUE PHILOSOPHIQUE*, January, 1901.)

A paper entitled **"THE BRAINS OF TWO DISTINGUISHED PHYSICIANS, FATHER AND SON; A STUDY OF HEREDITARY TRANSMISSION BASED ON THEIR COMPARISON,"** was read on February 15 before the Section of Anthropology and Psychology of the New York Academy of Sciences, by Mr. E. A. Spitzka.

The brains were those of Dr. Edouard Seguin and his son, Dr. Edward C. Seguin, both of whom were distinguished for high scholarship and brilliant attainments. The elder Seguin is best known for his fruitful experiments in the training of feeble-minded children, and for the methods proposed by him of ameliorating the condition of idiot children by the careful physiological training of all the senses. His contributions to the subject of medical thermometry were equally valuable, and he was one of the pioneers in advocating the introduction of the metric system into this country. Perhaps the most marked traits in his character were his modesty, his scholarly ways and his great powers as a teacher.

His son, Dr. Edward C. Seguin, departed this life so recently that it and his work are yet a fresh reminiscence. He graduated after a three years' course at the College of Physicians and Surgeons, New York City, at the early age of twenty-one. He was a lecturer on diseases of the nervous system and insanity at that college from 1871 to 1885, founding the clinic for nervous diseases in 1873. His contributions to the pathology and therapeutics of nervous disorders are especially valuable.

Both brains are characterized on the whole by their generally tortuous fissures, which are of considerable depth and are perhaps rather frequently interrupted by vadums and interdigitating subgyres. The gyres are bold and massive, so that in spite of the exceedingly intricate fissuration, the configurations of the brain are not "overcrowded" or "cramped-looking." The frontal gyres are by far the most complex of the entire brain, though the parietal gyres are almost as rich in their development. The cuneus is relatively small, especially in the left half of both brains. If the expression may be indulged in, one might say that the "physiognomy" of each of these brains reproduces that of the other much as the outer physiognomy of their bearers did in life.

Perhaps the most significant feature common to both brains is the slight exposure of the left insula, heretofore observed only in the brains of defectives, deaf-mutes, idiots, negroes, etc. In the Seguin brains the cause of this exposure is a different one, and is due to the extreme redundancy of the insular pole, a redundancy so pronounced that this region of the insula—in its effort to reach the general cerebral surface—has virtually thrust apart the opercula and made itself visible. The soundings made of the sylvian cleft on both sides and in both brains give good corroborative evidence in favor of this hypertrophic development of the left preinsula.

A large number of unilateral atypies in these brains, after careful comparative tabulation, show evidences of direct hereditary transmission. A few features, however, demonstrate "crossed" hereditary transmission involving questions of "symmetry in asymmetry" as mysterious as the differences or resemblances are profound.

The elder Seguin's brain weighed 1,257 grammes when fresh, and lost 30 per cent. of its weight during twenty-one years' immersion in alcohol. The son's brain weighed 1,502 grammes—about 53 ounces avoirdupois—standing quite high in the list of brain-weights of eminent men. The low figure for the father's brain seems to be in part due to some wasting of brain-tissue from disease, or age, or both.

#### O LETCHENI VNOUSHENIEM, DR. B. N. SINANI.

The application of suggestion as a therapeutic agent is not clearly understood by the profession at large. Most psychiatrists who are in a habit of using this means in appropriate cases believe, with the originator of the Nancy School, that before suggestion is practiced on the patient the latter must necessarily be put in a condition of so-called "hypnotic" sleep. This is an error easily demonstrable in clinical work: every clinician in this line of work is familiar with the fact that in many cases where the patient fails to yield to the suggestion ordering him to sleep, he will yet be receptive to other suggestions. The treatment in such cases is carried out without the patient being in a condition of hypnotic sleep; and while it may be found difficult or impossible to suggest sleep to such patients in the first instance, the sleep may most easily be suggested after he has shown himself susceptible to other suggestions that bear directly on the conditions for which he comes to be treated. There are many cases where the patient is refractory and refuses obstinately to fall asleep; the physician persists, but fails to succeed; he then assures the patient that he is susceptible to suggestion regardless of his wakeful state; one of the patient's limbs is then lifted, placed horizontally and he is told that he cannot move it; the patient makes an attempt to move it, but fails to do so. This proves not only that suggestion can be successfully carried out without hypnotic sleep being previously induced, but also that successful suggestion and induction of hypnotic sleep may be in contradictory relation to each other; again, the sleep may be easily induced after other suggestions have been made successfully. In conclusion, it is said that hypnotic sleep, far from being the essential condition before suggestion can be practiced, is only one of the episodes or symptoms, which can be brought out, successfully or not, by an experienced hypnotist. Many suitable cases forego treatment by hypnosis because of the aversion they have to being thrown into a hypnotic sleep: the feeling of having one's will subservient to another's is objected to and sometimes even feared by many patients. The physician should bear



this in mind when applying hypnotic treatment to his patients, and avoid inducing sleep when this is objected to. Twenty interesting cases are cited which the author handled according to the method described. As direct suggestion can be used with such tangible results, it should be utilized in daily life in the relation of parent to child.

**REVUE GENERALE SUR L'AGNOSIE (CECITE PSYCHIQUE).** DR. ED.  
CLAPAREDE, *Privat-Doctent a l'Universite De Geneve.*

This is a studied essay and literary review of the most noted cases and theories relating to the psychic disturbances coming under the head of *agnosia*. The terminology used by various authors is discussed and commented on. In view of the great difficulties attending the study and examination of such cases a series of suggestions is given by which the examiner may be guided and guarded against erroneous conclusions. The possible forms of agnosia are tabulated as follows:

**AGNOSIA.**

**DISTURBANCES OF PRIMARY IDENTIFICATION (PRIMARY AGNOSIA):**

Visual agnosia for forms;  
Achromotopsic agnosia;  
Stereoscopic agnosia (disturbances of perception of relief and depth);  
Stereognosia (touch);  
Agnosia for words: pure verbal deafness and blindness.

**DISTURBANCES OF SECONDARY IDENTITY—ASYMBOLIA:**

With conservation of mental representations:	With loss of mental representations:
Optic.	Psychic blindness properly speaking.
Acoustic.	Psychic deafness.
Tactile { true (?) { tactile blindness.	Tactile amnesia (?)
Olfactory.	Psychic anosmia.
Gustatory.	Psychic absence of taste.
Vaso-motor (apathy).	Apraxia.
Kinesthetic and motor.	Akinesia.
	Disturbances of orientation.

**GENERAL, WITH LOSS OF WILL POWER:**

For words—	
Optic aphasia.	True sensory.
Acoustic aphasia.	Aphasia.
Verbo-optic asymbolia.	Motor aphasia.
Verbo-acoustic asymbolia.	

(*Annee Psychologique, Tome VI., 1900.*)

**PROPORTIONS OF SEXES IN CRIME.**

Dr. Valentin, in a review of Lombroso's work on punishment for women, states that the following is the proportion of criminal women to 100 criminal men: In Italy, 19 women; in France, 16; in Austria, 14.8; in Hungary, 11.6; in England, 20. (*Revue de Psychologie, December, 1900.*)



## BOOK REVIEWS

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### **A STUDY OF BED-TREATMENT FOR THE VIOLENT INSANE. DR.**

GUSTAVE POCHON. THESIS. *Georges Carre and C. Naud, Editeurs, Paris, 1900.*

The bed-treatment of the violent insane is considered in all its details, clinical as well as historical, and the work is abundantly illustrated with histories of cases. The treatment is followed out in detail from its birth. The conclusions arrived at are as follows: The bed-treatment of the violent insane is possible. To specify,—in cases of simple mania without delirium or hallucination or simply of an episodic nature and secondary, and in cases of agitation by reaction against delirious conceptions, the possibility of the treatment is subordinate to every individual case according to its nature. Possible in all cases, the treatment may become impossible in certain cases of particularly violent reaction; it is especially useful in all cases of violent alcoholic delirium. In extreme automatic agitation difficulties may be encountered; under such circumstances hypodermatic injections of hyoscine will be resorted to in doses of from  $\frac{1}{2}$  to 1 milligramme, or else the isolated room will be used. The specified conditions are, of course, subordinate to the extent of the attendants' help. The bed-treatment in all cases of violence is indicated for the physical as well as for the mental condition; while it is an agent of restraint, the advantages derived from the treatment otherwise far surpass that inconvenience or any other, such as possible constipation, etc. The anæmia that might result from the treatment is counteracted by taking the patient out for a walk for two or three hours in the afternoon. It is difficult to say what the influence is on the prognosis: this depends mainly on the disease itself; nevertheless, it can be said that the intensity of the maniacal excitement is diminished, as is the anxiety of the melancholiac; the phenomena of exhaustion consequent on the acute mental conditions are less marked. In the alcoholic the fatal terminations are avoided, unless an organic disease accompanies the trouble. It goes without saying that the bed-treatment is coupled with such special treatment as the case may require: moral treatment, sedatives (prolonged baths, bromides), hypnotics (chloral, sulfanol, trional) are given in cases of extreme insomnia. The hygiene is also to be observed; digestive and circulatory disturbances must be attended to. Almost always possible, always necessary, the bed-treatment must constitute the basis for treatment of the insane. During the year 1898-99 the number of patients thus treated was 1,180 on the men's side, in the Admission Bureau, at Ste. Anne. Out of those, eight patients had to be given hypodermatic injections, once to every one, and isolation was necessary nine times. On the women's side, out of 570 patients, nine had to be given hypodermatic injections once. These figures prove beyond a doubt the possibility of utilizing the bed-treatment for the violent insane.

**ESSAI SUR L'IMAGINATION CREATRICE.** TH. RIBOT. *Félix Alcan, éditeur, Paris, 1900.*

Contemporaneous psychologists have studied with much ardor the imagination as a pure reproducer. The works on the various groups of images—visual, acoustic, tactile and motor—are known, and constitute an ensemble of researches solidly based on subjective and objective researches, on facts in pathology and on laboratory experiments. The study of the imagination creator, on the contrary, has been almost entirely neglected. Nevertheless, its importance cannot be contested and it does not merit this indifferent disdain.

M. Ribot's work is divided into three parts: The first, analytical, tries to unfold the constructive imagination into its constituent factors and to study every one separately; the second part, genetic, follows out the integral development of the imagination, from the simple to the complex forms. The constructive imagination is reducible to three forms, which are denominated abortive, fixed and objective, according to whether it remains an internal phantom, takes on a material form, but is devoid of strength, or is subjected to conditions of a rigorous internal or external determinism. The abortive form is premordial and original, the simplest of all; it characterizes a moment of the imagination's birth. The fixed form comprises the mythic and esthetic creations, the philosophic and scientific hypotheses. This form is very elastic; language, writing, music, color and lines represent it. The third form constitutes the true imaginative type.

The psychology of the imaginative is expressed by a progressive and increasing intensity; the images become more and more vivid and the perception more and more feeble. In this progress M. Ribot notes four stages: First, the quantity of images; second, the quantity of intensity; third, the quantity, the intensity, and the duration; fourth, complete systematization. The latter is the external form—verging on insanity.

OSSIP-LOURIE (Laureate of the Institute).

**ON THE CLASS OF DELINQUENTS INTERMEDIARY BETWEEN THE INSANE AND THE CRIMINAL (CLINICAL), ADMINISTRATIVE AND MEDICO-LEGAL.** THESIS BY DR. ALBERT PETIT.

The criminals handled by the asylum physician are considered from a clinical, social and medico-legal standpoint. Clinically, these subjects are out of place in the asylum for the insane, and yet such offenders do not belong to the ordinary class of criminals; the prison is, therefore, not the proper place for the former. Such individuals are born with a deficient moral sense, and although free from mental derangements that would class these subjects among the insane, they are yet morally irresponsible, being of an unbalanced moral equilibrium; therefore, they are irresponsible before the law. Society owes it to its own safety to keep such individuals in homes specially devoted to their use, of the nature of the New York State Reformatory at Elmira. The author enters into detailed consideration of the practical management of such an institution: he is of the opinion that the patient's work should be utilized as an economical element in the support of the institution. Touching on the medico-legal question, he holds, with Professor Brouardel, that it is due to the country to have expert alienists at court who could intelligently separate the ordinary from this

class of criminals and isolate these in asylums especially provided for them. Professor Joffroy further urges that it be obligatory for all medical students to spend not less than three months in the asylums for the insane, to the end that they might become familiarized with the mental forms in question. The thesis is carefully studied in all its parts and contains much valuable clinical as well as theoretical information on the subject therein treated.

#### CONTRIBUTION TO THE STUDY OF STEREOGNOSTIC PERCEPTION.

MELLE. KLAVDIA MARKOVA. INAUGURAL THESIS, 1900. *Ch. Eggimann and Co., Editors.*

The author divides the study of stereognostic perception into two parts. The first part treats of the peripheral conditions that govern that perception and the second of the central ones on which depends the perception of form. A sharp distinction is made between the terms *sensation* and *perception*, and the division of the research into two parts is based on this interpretation of the two terms. From the etymology of the term "stereognostic" it is concluded that a stereognostic perception of objects is the perception of their forms in space. Though the eye can appreciate the form of objects, the term is used here as applied to the perception of forms by touch. The experiments are illustrated by drawings.

LA PHILOSOPHIE DE TOLSTOI. BY OSSIP-LOURIE. *Felix Alcan, Editeur, 1899, Paris.*

This masterly work shows a deep insight into a human life: that of the immortal novelist and philosopher, Tolstoï. Those who are familiar with Tolstoï's powerful photographic narrative style, whether he is dealing with a purely literary subject or a philosopho-psychological, one can estimate to what a degree an analytical work of this nature must interest us. There is exposed here not only the entire life history of the great Russian writer but also the psychology of that life. The longings, desires, aspirations from childhood of this worker and his attainments—all these have been different from those which characterize personalities accepting what *is* for what *should* be. It has been said that in this work there is exposed not simply one life but that of classes, of a nation and, one might say, of nations. To make the wrongs of life understood by all, Tolstoï pours out his soul, his feelings and his reasoning, crushing tradition by the very strength of his convincing softness and gentleness. Living in a country where the Church is intimately interwoven with the fabric of the government, he attaches much blame to that Church, ascribing to its influence all the sufferings of the people with whose pulse his own beats in unison.

His works touching on the question of woman's influence on life have been considerably misinterpreted: according to him, woman should be the holy spark of life, infusing all that is high and ideal into her family and consequently into society, into government and her country. He attacks marriage as it exists to-day. Commercial conditions are the governing principles between the man and woman destined to play the important rôle of two intimates who—by virtue of their relations to each other—cannot fulfill the promises mutually made: the soul refuses to invest itself with commercial fetters.

Life is handled in all its phases: individual, collective, social, religious, civil and public, in peace and in war. Tolstoï could depict in an unrivaled

style before he wrote "*Voïna i Mir*" (War and Peace). During the war of 1856, in Crimea, he took an active part in the defence of his country; and there, on the battle field, he saw the corpse, the half-dead, the wounded and the well, all mixed and writhing in one huge, frightful flood of blood. He ministered to the sick, he smiled consolation to those who were departing life and gave manly encouragement to those who could profit by it. When the blood flowed no more and the sighs of the suffering had become hushed, Tolstoi's heart was aching—aching more than it ever had. His fears and doubts, his negations and queries, his *why* and *wherefore* as to life, all melted into an imperative fuel of divine order that compelled him to write. To write is hardly the word, for he has carved and chiseled into everlasting figures that which he saw, that which he felt and that which he suffered.

The personality of the author of this volume is so intimately intertwined with what is expressed about Tolstoi that at times one stops to ask: Who is he who states this or that truth? The author of some eight volumes on philosophy, poetic prose and psychology, two of his works having reached their fourth and fifth editions respectively, he seems to have proven himself a fit person to undertake and successfully accomplish the hard task of enabling the world to familiarize itself with the Russian's life and works. This volume has been crowned by the Institute of France.

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## NEWS NOTES.

### THE HILL INSANE HOSPITAL, AUGUSTA, MAINE.

A large amount has been expended in the construction of the new hospital for the insane at Bangor, and at the recent opening of the legislature this institution was formally committed by the Governor and Council to the appointed board of trustees as practically completed. Before patients can be received, however, an appropriation must be made by the legislature for furnishing the buildings, so that two or three months may elapse before the hospital will be ready for occupancy. The two wings erected will accommodate two hundred patients, and it is now the plan to transfer from the hospital at Augusta one hundred and fifty or one hundred and seventy-five inmates, in order to relieve the crowded condition of this institution. Dr. George W. Foster, of the Government Hospital for the Insane, at Washington, D. C., was appointed superintendent last November, and Dr. P. H. S. Vaughan, second assistant at the Augusta hospital, was promoted to the position of assistant superintendent of the Bangor institution. The woman physician, E. Virginia Baker, resigned in November, and Dr. Gertrude E. Heath was appointed to fill the vacancy.

Dr. Hiram L. Horsman, by promotion, becomes second assistant.

B. R. B. WEBER, superintendent of the GIRLS' INDUSTRIAL SCHOOL of Nebraska, writes us that the fundamental practical method of treating the class of girls who land in that school should consist of giving them sufficient employment, as idleness is the main factor in breeding crime. Most of the inmates are brought there because of idleness and consequent misbehavior. Mr. Webber has written an interesting pamphlet on "Street Companionship."

**MATTEAWAN STATE HOSPITAL.**

The Matteawan State Hospital has for some time been much overcrowded. The buildings were designed to accommodate five hundred and fifty patients, and before the recent transfers to Dannemora were made had reached a limit of seven hundred and sixty-five persons. The institution at Matteawan receives persons charged with crime who may be found to be insane after arrest or after indictment or during trial. It also receives convicted patients from the various penal institutions of the State in whom insanity is discovered while undergoing sentence. The institution has grown from a population of two hundred and nineteen in 1889 to a total of seven hundred and sixty-five in 1900. A very large percentage of inmates are "court cases" who have never been convicted but who are held awaiting return to court, which is dependent upon their recovery.

Mingled with such cases are the habitual criminals from the prisons and persons sentenced for minor crimes.

It is proposed by opening the new hospital at Dannemora to separate in a large measure the two classes, and the new asylum will care for persons convicted of a *felony* who may be found to be insane while undergoing imprisonment; while the institution at Matteawan will receive patients from the courts as heretofore and also such persons from the penitentiaries who may be charged with simple misdemeanors and petty offenses. In that manner the habitual and hardened criminal will be eliminated.

The purposes to be attained at Matteawan are similar to those at Broadmoor, England, where patients from the courts are detained "during the King's pleasure." The Matteawan State Hospital was originally established at Auburn in 1855, and was designed to relieve the State hospitals of criminal cases. Its scope has been enlarged from time to time at the request of the various superintendents of such hospitals, so that it has become practically a receptacle for all the insane of the State who are held in custody charged with criminal offenses. Owing to its recent overcrowded condition, it has been able to receive during the past year only a few of the cases which naturally would be committed to its care. With the opening of Dannemora, however, an opportunity of natural growth is given to both institutions, and it is probable that when the buildings are finally completed and in operation, the combined population of the "court" cases and petty offenders at Matteawan, together with the convict insane at Dannemora, will reach a total population of twelve hundred insane criminals in the State of New York. (*Correspondence from Dr. H. E. Allison, Medical Superintendent.*)

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## THE EARLY DIAGNOSIS OF LUES CEREBRI.

BY Prof. W. TSCHISCH,

*University of Dorpat.*

An early diagnosis of lues cerebri is as difficult as it is important. Although this form of cerebral affection is far more frequent than any other met with in clinical work, yet is it a deplorable fact that the physician is more frequently misled than not in determining, at an early stage,—the most important time in this disease,—the existence of cerebral syphilis.

THE PRACTICAL VALUE OF AN EARLY DIAGNOSIS.—Lues cerebri can be cured only if treatment is instituted at an early date, before damage has been done to the delicate tissues. For want of an early diagnosis many a patient has either died from that cerebral affection through its direct results, or else has fallen victim to progressive general paralysis.

LUES CEREBRI IS CURABLE.—Practical work speedily convinces one that the disease is curable if taken in hand early, *i. e.*,—if diagnosed early. If cases are reported of unsuccessful treatment, the failure is always due to the fact that the diagnosis was made too late, that the disease had advanced too far, that irreparable damage had been done before the treatment was instituted. Yet, it would be wrong to censure any physician for a faulty diagnosis during the early stage of the disease; for, no disease is more deceptive in its entity of manifestation. Indeed, so obscure are the first manifestations that one is forced to admit that it is almost impossible to distinguish them by the first symptoms.

The symptoms, or group of symptoms, claimed by some to be characteristic of the disease, are either inconstant in appearance



during the early stages or else, if present, make their appearance, in some cases, at too late a date.

**THE EARLY SYMPTOMS.**—Of the early symptoms, dull, diffuse headaches are characteristic, particularly if the ache is worse at bed time. Many diseases, however, are accompanied by headache, and the diagnostic value of the symptom is thereby lessened. The symptom, far from aiding in the diagnosis, often misleads instead, the symptom being taken for an index of the existence of neurasthenia. Such mistakes are more frequent than is supposed, and sad results are their consequences in many cases.

**DIFFERENTIAL DIAGNOSIS BETWEEN HEADACHE IN CEREBRAL SYPHILIS AND THAT IN NEURASTHENIA.**—In neurasthenia the headache generally appears in the morning and the patients feel better towards evening. In cerebral syphilis, on the contrary, the reverse is true; the patient suffers from headaches at night, and feels better in the morning. In addition, the general condition of the patient, his subjective feelings, are all worse at night in incipient cerebral syphilis.

**INCONSTANCY OF HEADACHE AS A SYMPTOM IN INCIPIENT CEREBRAL SYPHILIS.**—Yet this symptom has no capital value. I have known well educated patients, who could give intelligent accounts of themselves, who assured me, when under treatment for tardy cerebral syphilis, that they had not suffered from headache during the early stage of the disease, that in fact, they felt well, as if nothing had happened to them. It must be borne in mind, however, that such cases are exceptions:—the majority of cases do suffer from headache. Yet, this symptom loses thereby its practical significance; and often our patients astonish us suddenly with an onset of general paralysis when this is least expected, even while under treatment and careful observation.

**OBSTINATE INSOMNIA.**—Obstinate sleeplessness is another early symptom of incipient cerebral syphilis. This symptom, however, is not the rule in all cases. In fact, the minority only suffer from this trouble; besides, many who do suffer from headache state that the trouble was of such short duration in the early stage that it would have escaped their notice had they not been questioned on the subject; that the trouble either disappeared of its own accord, or else yielded to mild soporifics. Such occurrences are additional misleading factors in the diagnosis. Yet, there are cases with obstinate sleeplessness as an early symptom of incipient cerebral syphilis; in such cases the trouble seldom yields to even heroic doses of potassium bromide, even in combination with hydrotherapy and exercise in

the open air. The insomnia generally grows worse, in such cases, and after consulting many local physicians the patient falls into the hands of a specialist; a careful inquiry into the patient's history often reveals the fact that syphilis has been ravaging the brain for from five to twenty years. When specific treatment is applied the patient is generally much relieved, sometimes as quickly as within a few days. I have known patients who have suffered from such insomnia and who have become relieved three days after the specific treatment was instituted, potassium iodide being given in large doses, up to 5 grammes. In some cases, where central disturbances have already set in, the question of alleviating insomnia becomes a difficult one. As may be seen, obstinate insomnia, if not a frequent symptom, and when appearing at a late stage of the disease, must be eliminated as a practical guiding index in the diagnosis of incipient cerebral syphilis. But it is the physician's duty to search most carefully into the history of this symptom. There are cases where insomnia sets in in the early stage, disappears without any treatment, only to re-appear some months later, when the incipient cerebral syphilis is already well on its way of morbid progress. As applied clinically, these symptomatic irregularities should be carefully scrutinized and not be overlooked. Particularly is such scrutiny of great importance in the case of *non-neurasthenic* persons, say a man of middle age, who suddenly falls victim to such insomnia. When such cases present themselves, the possible existence of incipient cerebral syphilis must be thought of by the physician and appropriate treatment must speedily be resorted to.

INEQUALITY OF THE PUPILS.—Inequality of the pupils has a symptomatic value less than is generally ascribed to it. For, it is not present in all cases; when it is present, its value is only a conditional one. It must first be ascertained whether the patient's pupils were equal before the disease set in. There are many patients whose inequality of the pupils is ascribable to defective accommodation, to unequal refraction on both sides, while they are not aware of the fact; and very few among patients are so observant as to be able to give a correct account of the time when the inequality of the pupils set in. Besides, as a clinical help neither the inequality of the pupils nor the reflexes are signs of incipient syphilis; on the contrary, they point to the existence of a grave pathological process in the cerebral tissues, and when these signs are present there is little hope for the cure of the affection.

THE KNEE AND TENDON REFLEXES.—Both the knee and neuro-tendon reflexes are of little value unless the physician was acquainted with their nature before the disease in question set in; under the latter conditions, and with the knowledge that both were normal prior to the onset of the disease, the exaggerated or diminished reflexes may imply the presence of cerebro-spinal syphilis; such cases, however, are rare; it is well to bear in mind also, that in exceptional cases abnormal reflexes may be congenital and that the intensity of the reflexes varies with every individual. Should it be found that increased or diminished reflexes exist, which point directly to the presence of cerebro-spinal syphilis as corroborated by the whole history of the disease, treatment stands powerless as a curative measure at that stage.

THE PHYSICAL CONDITION DURING THE COURSE OF CEREBRAL SYPHILIS.—The patient may remain in excellent physical condition during the better part of the evolution of the disease. Exceptions may exist and these help make a diagnosis earlier, but when apparently good health prevails, further difficulty is thrown in the way of a correct diagnosis. The general health breaks down, however, when the disease is well advanced and finally, at the end of the course of the affliction, the nourishment of the system becomes well undermined. This may aid in making a diagnosis, but no benefit can then be derived from it, as treatment is of no avail at that stage.

From what precedes it is apparent that an early diagnosis of cerebral syphilis is a most difficult matter, neither the local nor the general manifestations serving as practical guides to an early diagnosis.

THE ARTERIAL SIGNS AS GUIDES IN THE DIAGNOSIS OF INCIPIENT CEREBRAL SYPHILIS.—As the cerebral tissue is reached by the syphilitic infection through the arterial channels, it is the arterial system that first falls victim to the infection. It is true that not every syphilitic infection ends by working pathological damage in the brain, but it is the physician's paramount duty to be on the lookout for such a possibility, for, when the disease once reaches the brain no treatment can be of any practical use in restoring the erstwhile intact state of health of the delicate cerebral structures. When the ophthalmoscope shows plainly the presence of morbid changes in the retinal arterial and venous system, the pathological ravages are already too far advanced to be remedied permanently and radically. Besides, I have known many cases where most careful ophthalmoscopic examinations performed by celebrated oculists have failed to

reveal any pathological changes there, while extensive gummata invaded the brain tissue. The only positive and least deceptive conditions of arterio-sclerosis of syphilitic origin must be searched for in the vessels about the skull, the carotid artery being the seat of predilection for the affection *par excellence*. The ramifications of this artery make no exception to this rule and the *temporal* artery is by far the best seat of research for the physician. The intimate anatomical relations of these two arteries lead to almost identical lesions of both; clinical experience warrants my statement that the degree of lesion of the intima exists synchronously, to the same degree, in all—the internal, external carotid and the superficial temporal arteries. Physicians have passed in silence the valuable clinical guide found in early detection of sclerosis in the deep arteries around the base of the skull, for the reason that these vessels are not easily accessible to investigation. Even the most superficial arteries in which sclerosis takes place are difficult to study. The posterior branch of the temporal artery, and its ramifications, are covered with the hairy parts; as for the interior branch—it is well covered with thick tissues, rather loosely drawn over it, so that the sclerosis must be well advanced in degree in order to attract the physician's attention. When the cerebral syphilis is well advanced in its progress the sclerosis of these vessels is quite noticeable, just as it is in the case of chronic alcoholics.

**THE SITE OF THE EARLIEST ACCESSIBLE ARTERIAL SIGNS.**—From my experience and repeated observation I have concluded that the earliest accessible signs of arterial sclerosis are to be found on the temple in the *anterior* temporal artery; this runs in a line parallel to the edges of the hair insertions, or perhaps from 1 to 1.5 centimetres inside of that line. The comparatively superficial situation of the vessel makes a valuable region of research for incipient sclerosis. This becomes easier as the person is older and the skin covering the vessel is looser and more moveable.

**THE FIRST SIGNS** of the sclerosis that make their appearance in the anterior temporal artery are in the part running through the *middle* region of the temple; the affection then spreads backward, into the region covered with thick hairy skin. In mild cases this sign may be lost sight of when the above named part of the artery is examined *enface*; for, when the sclerosis is mild in nature the thickening of the artery is not marked and does not stand out as it would otherwise. The part must then be examined carefully, from the *profile*; this position is obtained by placing the patient's face *enface*; the thickened artery is then

well exposed to view, even when the changes are not well marked. It is well, in order to avoid mistaken conclusions, to examine the portion of that artery in its three-quarter position as well as in its profile. Besides the thickening of the artery there is also a zig-zag curving of it; it goes without saying that the degree of sclerosis and the seriousness of the disease are in proportion to the marked zig-zag curving. In advanced stages the *anterior* branch of the temporal artery also becomes involved. When this exists, of course, the disease is too far advanced to be benefited by a diagnosis.

**DIFFERENTIATION FROM ENLARGED VEINS OF THE TEMPLE.**—Enlarged veins are often mistaken for sclerosed arteries. My observations warrant the statement that arterial sclerosis in the temporal in question always begins in the middle part of the temple, while the enlarged veins are always more distended in proportion and most marked in the region nearer the inside of the face. Besides, physical or mental effort bulges the volume of the veins more than usual, while the sclerosed artery remains unaffected by such causes. The arterial sclerosis that is of service diagnostically, indicating incipient syphilis, is not marked in degree; this also may serve as a differential point.

#### CONCLUSIONS.

The indicated arterio-sclerosis of the branch of the temporal artery described is a most valuable diagnostic guide in discerning incipient cerebral syphilis. Since I have begun paying attention to this sign I have never found one case of cerebral syphilis that did not present this physical sign. If other observers find exceptions to this rule, which according to me can not exist, such exceptions are most rare. To eliminate possible misleading cases, it must be borne in mind that a syphilitic patient may die of a cerebral embolism; the temporal artery sign will be absent here, but so is the cerebral syphilis, the patient dying not from cerebral syphilis, but from embolism.

**THE LEFT IS THE PREFERRED SIDE AFFECTED IN THE BEGINNING OF THE DISEASE.**—Arterio-sclerosis generally appears on both sides, but the left is the preferred side affected in the beginning of the disease, so far as I have observed cases up to this date. Yet, I do not insist on the absoluteness of the fact. In twenty-two cases the sclerosis was marked on the left side only and in two on the right. In all these cases the arterio-sclerosis was my main leading sign in the diagnosis, as all the other symptoms were scarcely present. The sclerosis becomes marked on both sides when the disease is well advanced and when a diagnosis of the case is of no special practical value.



THE INDICATED ARTERIO-SCLEROSIS IS AN ABSOLUTE SIGN OF CEREBRAL SYPHILIS EX-JURANTIBUS.—That arterio-sclerosis as described and located is an invariable index to incipient cerebral syphilis is proven to my satisfaction by the fact that specific treatment in judicious doses dissolves the slight arterio-sclerosis within the course of a few weeks, leaving only the slightest traces of the alteration.

DIFFERENTIAL DIAGNOSIS BETWEEN ARTERIAL SCLEROSIS OF LUES CEREBRI AND CHRONIC ALCOHOLISM.—The differential diagnosis between arterio-sclerosis of lues cerebri and chronic alcoholism may easily be made by aid of the patient's history. Besides, when of alcoholic origin, the arterio-sclerosis is late in appearance, after alcoholic abuse of many years. When the case is a mixed one, the patient suffering from syphilis and indulgence in alcoholic excess, the development of arterio-sclerosis is early in its onset. The differential diagnosis between arterio-sclerosis ex-lues and that of other origin can easily be determined by a careful study of the patient's history and a physical examination.

REMARKS.—Psycho-pathic and neuro-pathic cases, distinctly stigmatized as degenerates, *never* suffer from arterio-sclerosis ex-lues cerebri. I have had occasion to speak about this interesting fact elsewhere.\*

It is in exceptional cases only that those subjects suffer from lues cerebri and progressive general paralysis. This interesting fact is of such great importance that in dubious cases, where there is difficulty in determining the existence or non-existence of lues cerebri, one may safely say that it does *not* exist if the patient is either of neurotic or psychic taint, such as: Strangeness of character, abnormalities of mental equilibrium, mental diseases, born criminals, puellae publicae, etc. The existence of lues cerebri in such cases is so rare that Professor Joffroy and Dr. Jombault considered it of interest to report a case with the above named taint, the subject being afflicted with cerebral syphilis.\*\*

Dr. Lalanne remarked that he too observed one similar case. Regardless of such rare exceptions, the presence of stigmata of degeneracy is often helpful in the diagnosis, and lues cerebri may, on the strength of that, safely be excluded.

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\*Die Wahre Ursache der progressiven Paralyse. Psychiatrische Wochenschrift, No. 29, 1900.

\*\*Paralysie Générale Progressive chez un sujet ayant présenté dix-huit ans auparavant du délire de persécution. Congrès International de Médecine, Paris, 1900.



# THE SYMPTOMATIC VALUE OF DREAMS, FROM THE STANDPOINT OF THE MENTAL STATE ON THE EVE OF ONSET OF CIRCULAR INSANITY.

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During our researches on dreams we were favored with an interesting case of circular insanity, the manifestations of which we followed closely, both during the waking period and during dream of the patient. The value of the study lies in the fact that we followed it out during a period of three years, and that we were both enabled to personally collect information from the friends and to observe the case during the period over which this study stretches.

We will omit the clinical history of the case and turn our attention principally to the purely psycho-pathological side of the subject bearing on the relation of the mental conditions on the eve of the onset of the disease and after the manifestation of the same.

Mme. B. is 42 years old. Her physical condition is normal; there is no sensory disturbance, and there was never any serious or infectious disease in the antecedents. There is no morbid heredity. The patient first menstruated when 13 years old. There is nothing of note about her excepting that since the period of puberty she has been particularly susceptible to atmospheric changes. This susceptibility has been increasing in intensity with age. She says in regard to this: "A bright and sunny day intoxicates me with happiness, and equally so do gray and rainy days make me weep while they last." She married the second time when 37 years old. She was compelled to renounce many duties and occupations by reason of the periodic outbreaks of circular insanity to which she was subject, and which was increasing in intensity. Ten years ago she had to become an asylum inmate, as the family found it difficult to care for her in her morbid condition. She became more and more irritable, the slightest emotion

throwing her into intense agitation of mind, and she then acted without any regard to responsibility. She had remained in the asylum eight years, and was well known as a case of circular insanity. During the first four years of her stay in the asylum the duration of the lucid periods covered three-quarters of the time, but the reverse was the case at the end of the eighth year. We have watched the case during the last three years, and have taken particular note of the symptoms manifested during the period that separates the state of lucidity from that of excitation. The period of lucidity was always preceded by one of melancholic depression of a week's duration. During the period of lucidity she was able to occupy herself by reading or working, presenting nothing abnormal that would have led one to suspect her of suffering from the disease in question.

During the alternating periods of depression, calm and excitation, the patient always kept a record of her dreams, tried to interpret them, and boasted of knowing the interpretation of her dreams. She claims to have noticed that a few days before the onset of any period of her disease she could foretell the event by her dreams, which were of a different nature, according to whether they preceded a period of calm, of melancholy depression or of mental excitation. As she expresses it, the dreams indicated to her her "mental condition." She states that throughout her life, since youth, she has thus been enabled to draw substance from her dreams.

When we knew the patient at large, her friends spoke of her ability to foresee, through her dreams, the onset of her ailment. She often warned her family to take necessary precautions, useful during the period of her ailment, asked to be watched carefully when she knew, through her dreams in the calm state, that she would go through a period of agitation.

We made a study of her ability to predict the nature of the period of her ailment according to the dreams during the period of calm, as she claimed was the case. We observed fifteen periods of melancholy depression, fourteen periods of lucidity and twenty-nine periods of excitation. Three times we were witnesses to the fact that she could foresee a continuation of the period of excitation beyond the usual duration.

What we term "normal duration" is not without its variations in length of time; yet it would be wrong to ascribe the patient's ability to predict with precision the duration of a phase of her illness to cognizance of the period of habitual duration; the variation of duration of the periods is too irregular to warrant that automatic precision. The list of durations of the phases of her

illness herein given show that she could not have had any precise idea about any given duration.

TABLE OF DURATIONS.

Phase of	excitation	8 days.
" "	depression	14 "
" "	calm	18 "
" "	depression	4 "
" "	excitation	16 "
" "	depression	4 "
" "	calm	60 "
" "	slight excitation	13 "
" "	depression	4 "
" "	excitation	1 "
" "	depression	14 "
" "	calm continued	two and one-half months.

The above figures show the marked variability of the duration of the periods. We wish to remark that our researches were not confined to the study of the major phases of the disease; the minor ones were analyzed just as zealously, as they are important psychologically, if not pathologically.

ANALYSIS OF THE FACTS.—The nature of her *index-dreams* varies with the period they announce: that of melancholy depression, of maniacal excitement, or of calm.

DREAMS ANNOUNCING THE PERIOD OF EXCITATION.—We have collected twenty-nine observations relating to the announcement of this period. We were acquainted with the patient's family and studied the case even when at large. The family were most willing to aid us in gathering information, and the patient herself made capital of her ability to thus guide herself by her dreams, and spoke about them daily. The periods of excitation set in abruptly, yet the patient could announce them through her dream, thirty-six hours before. She generally went to bed at the usual hour, and arose in the morning at the habitual time also. But on the morning preceding the onset of a period of excitation she would wake up abruptly, suddenly. When we happened to be by her bedside at such a time she would say to us on awakening, "Come to my rescue, I shall again become insane!" This was said as if the patient was in a somnambulistic condition, as if she were awakening from a nightmare, and while she was reaching out for her clothes. After a few moments she would come to herself again and speak of her dreams, giving details with precision. It is clear that there was a certain systematization of ideas in the dream—a difficult thing to observe in the normal person. The nature of the dream was that of a nightmare: she dreamt that people tried to choke or strangle her, to occlude her

nostrils, to burn her eye-lashes, to tear out her finger nails, to pull out her hair, to stun her with a blow on the head, particularly on the forehead; to fetter her head in an iron helmet, to drive gimlets into her tongue, to twist her joints, to inflict slashes on her arms, to eviscerate her, and finally that she was made pregnant by some individual; she had no definite idea as to his appearance. She tried to escape her torturers, but they pursued her, and at this agonizing moment she would feel that she was becoming insane. Then she would wake up and state that she was about to become insane.

In twenty-four of the twenty-nine observations, the period of excitation was thus announced on awakening, the period separating the awakening and the onset of excitation varying from four to twenty-four hours; in one instance that period lasted twenty-seven hours; in four instances the announcements were false.

DREAMS ANNOUNCING THE PERIOD OF DEPRESSION.—In eleven out of fifteen observations, the patient's prediction of the time of the onset of depression was true; the prediction took place from eighteen to thirty-two hours preceding the onset; in one instance the interval was two days, and in four cases the prediction was not verified.

The nature of the dream was quite characteristic, according to the account given by the patient. In her dream she imagined that she did not exist; she felt herself reduced to the being of a child and was moving in a tub. She saw some "things" pass before her. At times her whole being was transformed into two eyes; these looked at the flow of quiet waves passing an infinite plain.

At times she felt that she was naked and caught in a rain storm, the wind blowing a hurricane while she was being carried off, not knowing where. In another dream the following scene is a fragment told by her: "I imagined that I was about to gather fruit from a tree, but no sooner did I stretch out my hand to reach it than the tree grew to an immense height, seeming to be hundreds of miles above my head; I remained as if transfixed, still holding up my extended arm in the air, not knowing what I wished to do and feeling puzzled about it all."

In other dreams of this kind she imagined that she was thrown into a sleep by means of drugs and that she slept during an eternity; or else people fatigued her by making her take very long walks while she was in a profound sleep. Finally, she often saw herself at the edge of rocks, from which she was about to fall into bottomless precipices; so frightened did she feel at those moments that she remained as if "photographed" on the rock, as she has it.

The waking from these dreams was, by contrast with the first,

very slow, although she was a light sleeper; so slow was her waking that at times she had to be shaken. Once awake she remained in a condition of marked indecision during the few hours that preceded the onset of the period of depression. She would say on such occasions: "It is odd, I feel that I am becoming stupid; my dreams of last night were of the nature that take away my appetite and make me dream during the day."

At the time of these dreams there seems to exist a personal psychic analysis; she seems to be conscious of the exterior intellectual conditions without being guided by any outside motive. Besides, there is considerable mobility of what passes before her eyes, and there is always a double splitting of her present and on-setting conditions; this is remarkable for its fixity and final immobility. All this takes place under the indefiniteness and vagueness of the chaotic state in which the dream develops.

**DREAM ANNOUNCING THE PERIOD OF CALM.**—The conditions are identical with the preceding ones. We will consider here the condition of distinct calm—a condition quite difficult to fix on psychologically. We succeeded in this, nevertheless, thanks to our intimate acquaintance with the case.

In six instances, during the course of fourteen observations, the patient's predictions of the time of the onset of the period of calm came true; the time between her statement about the onset and the occurrence varied from five to nine hours. In three instances her prediction was doubtful, as the period of calm was preceded by depression and agitation.

Although quite characteristic, the dreams preceding the period of calm are, in their nature, far from being as homogeneous as the others. The patient dreamt that she was dead, that her arm was cut off; she felt that her head was empty, or that she was at her sewing, was walking, or else she had nightmares of an indistinct nature. In the morning she woke up with a feeling of health. On one occasion, when we happened to be at her bedside at such a moment, she said: "It is well; the spirit of dreams made me walk last night."

The particular trait of these dreams is the accentuation of the energy activity well localized in space; it is remarkable how the equilibrium of dream, which is naturally unstable, remains here fixed.

**DREAMS ANNOUNCING THE CONTINUANCE OF A CONDITION.**—The continuance of a given condition was foreseen by the enormous multiplicity of the subjects and scenes dreamt about.

Our case is of interest from two points of view; because, as far as we know, this is the first time that a parallel has been drawn

between the various stages of disease and the corresponding conditions during dreams; because the observations were sufficiently numerous and verified to preclude the hypothesis of an erroneous conclusion on our part as to the psychomechanical expressions considered above. This being the case, one must agree that the mental conditions on the eve of the onset of a new phase are the results of a very delicate psychic process, of a whole sub-conscious genesis of the mind in general, which can be observed in the manifestations of the dreams, as the latter allow us to grasp the elaboration prepared by acts. Under ordinary circumstances, the manifestations of this elaboration are learned by us late, when the given phase of the disease is already manifested. The characteristic trait of the dream that precedes the condition of excitation is that it is like an obscure image of the entire work of psychic elaboration, being both somatic, sensory and central and on the verge of becoming upset in its equilibrium, the result of which we usually learn when the resultant manifestations are in evidence. The dream may be considered as a sort of a reflex index, the sense of which we cannot understand, nor do we understand its psychological value.

It is only a suggestion, but it seems natural that the dreams announcing the phase of calm should be of a mixed character, as ordinary life is in itself of a mixed nature, neither the key to which nor the measure whereof are in our possession.

The value of this research is limited to its pointing out a means to be found in dreams for predicting the nature of any phase of disease that is about to set in.<sup>(1)</sup>

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<sup>1</sup>N. VASCHIDE and H. PIERON. The prophetic dreams in Greek and Roman antiquity. *Monist*, January, 1901.

— De la valeur sémiologique des rêves. *Revue Scientifique*, 1901, I Semestre.

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## COMPLICATED RESPIRATORY TIC IN A MELANCHOLIAC

BY V. SEMIDALOW AND V. WEIDENHAMMER, MOSCOW.

Our case is of interest chiefly for the complicated respiratory spasm which involved almost all the respiratory muscles, but especially those of expiration. Similar spasms are most frequently described as occurring in the forms of complex diaphragmatic disturbance. As we have found no case similar to ours described in literature, we have decided to present the case and give a description of the malady. It is worthy of note that respiratory spasms are generally met with in cases of hysteria; in this case, however, as will be seen below, there is no basis for the plea of hysterical taint.

N. S. U. is 58 years old, a widow, of the peasant class. She was admitted to the Alexeïevski Psychiatric Hospital on Nov. 30, 1898. Her father, mother, two brothers and a daughter died of tuberculosis. The patient was accustomed to drink alcoholic beverages moderately but has long since given up that habitual indulgence. She married a drunkard when 17 years old; she had four children; one abortion took place during an attack of typhoid fever. She also had pneumonia when a little over 25 years of age; she suffered from a cough, night sweats and frequent hemorrhages from the nose and larynx and was often obliged to seek admission into hospitals for treatment. At 29 she became a widow, and, finding herself helpless, was compelled to "live out in service." Two years later she again married and had five children with the second husband. Twenty years later she again became a widow and went to "live out." The climacteric period passed without causing any trouble. The patient was always active and interested in her surroundings, but was noted for her quick temper and irritability; no other irregularities of nature were noted about her.

Some time before the present illness she had a severe nose-bleed, which was treated at a hospital by plugging. She then developed

some fever, which probably had some connection with the nose-bleed; the fever extended over a period of twenty-one weeks. On October 13, 1897, a new nose-bleed took place and was stopped during the course of the night, after plugging. Through the summer she was weak, and on May 21, 1898, another nose-bleed came on, weakening the patient still more. About that time she began to suffer from insomnia and became melancholy. In December the melancholia increased in degree; she remained passive, or else cried about her daughter, who had died long ago. She would say, now and then, that she was punished by God, that she was a sinner; begged for forgiveness and groaned and prayed. She remained in this condition up to September, 1898. She had some more hemorrhages from the nose, which were treated at a hospital by plugging. In September the patient suddenly rose at night and began to cry convulsively; from that moment the "cry" has not left her; on the contrary, the "cry" increases in severity, the patient saying during this *tic* that she is punished by God. At first she blamed herself for this persistent "cry," but now she ascribes it to someone else, who is within her body. At times she compares herself to a dog and the "cry" to a dog's barking. She remained indifferent to her surroundings before her admission to the hospital, but here she became rather aggressive in behavior.

She has no irregularities of the cranium, the contour of the ears is irregular, the legs are unequal in size, the left one being the thinner of the two. There is no disturbance of sensibility. The pupils are contracted, although equal, and they react well to both light and accommodation. The knee reflexes are decreased, but the skin, plantar and palate reflexes are well marked. The gait is slow and guarded. There was nothing of note in either the lungs or heart. Pulse, 84; respiration, 15 to 16 per minute; temperature normal. Sight, hearing, smell and taste normal. The skin and mucous membranes are anæmic; the patient's appearance is depressed; she becomes easily fatigued from the slight effort of speaking, besides experiencing much difficulty in the act, because of the "cry." The "cry" is an involuntary one, resembling loud groaning, being now abrupt and now prolonged in duration. The "cry" is accompanied by spasmodic contractions of the diaphragm, the pectoral, the abdominal, the cervical and the laryngeal muscles. When asked to abstain from crying she can do so, but only for a short while, and then resumes the "cry" with more intensity, as if to make up for the period of repose. She has neither neuralgia nor hyperæsthesia. She seems to shrink from being examined. There are neither delusions nor hallucinations.

During the course of the disease the respiratory spasm becomes more marked in degree as time goes on, involving more and more muscles; those of the face, the tongue, etc. At present, the inspiratory act is accompanied by interlocking of the jaws, stretching outward of the lips, the lower one covering the upper and almost touching the nose; the whole face grimaces, and then the jaws unlock, the tongue producing a characteristic noise, once or twice. The inspiratory phase ends and begins with a spasmodic effort and a cry; the latter is often followed by an exclamation: "Oh, I am lost!" This cry coincides with a spasmodic contraction of the abdominal muscles. When the patient is somewhat calmer than usual, the spasmodic noise produced by the contraction of the tongue, lips and muscles is absent.

During sleep, whether in the daytime or at night, the "cry" is absent; but no sooner is she awakened than the "cry" makes its appearance. The "cry" is most intense during the morning hours and until noon. Notes taken during the course of two months show that the "cry" is least marked in intensity during waking hours, between 2 and 4 P. M. and at 6 P. M. When the patient lies down, however, the "cry" is less marked, and the spasm is also dependent on the wakeful or sleepy condition of the patient. The upper lip has become macerated from being constantly covered by the lower one, and four front teeth have fallen out during this period of the disease. The constant straining of the abdominal muscles has caused a deformed shape of the abdomen, a heavy ring around the navel and a prolapsus of the posterior vaginal wall; the latter takes place when the patient is walking; there is also prolapsus of the liver and spleen. Besides the respiratory spasms, there are spasms of the whole trunk of the body, from time to time.

The patient is most melancholy in the morning, fretting and blaming herself for her sins: she cannot even die like ordinary people; she must keep on living; she is doomed to thus suffer and envy those who have the privilege of dying. She repeats the same thought in many ways: "I am doomed"; "Great is my misfortune"; "It is God's punishment"; "All can die, but I am to remain"; "If they only gave me morphine I should gladly die." She talks about death most of the time. At times she commits impulsive acts: now she suddenly spits at one of the patients, or strikes, without any provocation. She eats under protest, suffers from constipation, and believes that all the food she swallows is simply retained, without nourishing her. There is frequent micturition. Her sleep is often interrupted.

The respiratory tracings herewith published were obtained by

putting one pneumatic cushion on the middle of the chest and the other on the middle line—over the navel. The tracings were taken both during an excited and calm condition of the patient. In the first, the spasmodic contractions were at their height; in the second, the “cry” was absent—the patient’s attention was distracted by various means.

Verdin’s and Marey’s apparatuses were used, and on the whole the results on both were identical. We give here a description of the tracings obtained on Marey’s kymograph:

The striking difference between the curves characterizing the condition of the spasmodic cry and the condition of its absence is as follows: The height of the curve during the period of the “cry” (Nos. 1, 3 and 4) is two, three and more times greater than that obtained when the patient was quiet (No. 2); this is especially evident in the tracings of the thoracic breathing. The duration of the respiratory acts—inspiration and expiration—is about the same during both periods, i. e., that of calm and that of the “cry”—from three to four seconds, as may be seen on the tracings.

The greater height of the curves representing the respiratory acts during the “cry” depends not only on the deeper respiration, but also on the more energetic and generalized contraction of the respiratory muscles. This is not the only point of difference, however. The change from the inspiratory to the expiratory act is more abrupt; this is seen particularly in the tracings of the abdominal breathing; the lines representing the inspiratory and expiratory acts form an angle with a sharp apex, whereas the lines representing the breathing during the calm period form an angle with a rounded apex—the change from the inspiration to the expiration being gradual.

The expiratory line is perpendicular during the spasm and inclined during calm; during the spasm it is often shorter than the inspiratory line. This shows that the inspiration is followed by abrupt and energetic expiration of a spasmodic nature; the expiratory muscles of the chest and abdomen are attacked by the same spasm, as is seen on the tracings. While the tracings were being recorded, it was observed that the “cry” coincided with the spasm.

The change from the expiration to the subsequent inspiration is not a gradual one, there often being a pause, between the two, of from one to four seconds. In the tracings Nos. 1, 3 and 4, the pause is expressed by a horizontal line, connecting the lower ends of the expiratory and inspiratory lines; this line is well marked in the abdominal curves. The inspiratory movement always begins abruptly, not gradually, as during the period of calm; this

takes place whether the pause is expressed or not. This speaks for the inspiration during the "cry," taking place spasmodically, as does the expiration.

The curves of the chest and abdominal respirations are parallel, especially in the state of calm. During the "cry" the height only is greater in the chest than in the abdominal curves (Nos. 1 and 4), although in places both are equal (No. 3). The sharp angles of which we spoke (Nos. 1 and 3) show that the change from the inspiration to the expiration takes place abruptly; this was observed on the patient herself while the movements were being traced. The explanation of this fact is that the spasm of the abdominal muscles takes place when the diaphragmatic contraction is at its height; as a result, there is an impulse backward and a concussion of the highly tense abdominal wall. At that moment the patient gives the "cry" and the sharp angle is registered. The viscera undergo a great momentary pressure from both the tense diaphragm and the abdominal walls; the prolapsus of the organs mentioned is the consequence.

Sometimes the apex of the abdominal curve is marked by two or three teeth; these are due to a reflex spasm of the diaphragm. The double teeth of the apex of the thoracic curves also indicate a reflex impulse given by the concussion of the thorax during the moment of the highest contraction of the expiratory muscles.

In places, the thoracic and abdominal curves present a certain lengthening, running at an incline, and are often expressed by small teeth-like waves (Nos. 3 and 4); this lengthening coincides with the period when the patient speaks, as could be observed by us. So that, as soon as she begins to speak, the expiratory movement becomes slower and the spasm does not take place.

The analysis of the curves shows that all the respiratory muscles participate during the spasm and that the spasm is more distinctly expressed in the tracings of the expiratory muscles.

THE DIAGNOSIS OF THE CASE.—There can be no doubt that the case is one of chronic melancholia of a senile type; the patient's suspicious behavior, her fears and frettings, all point to that form of disease. There is nothing, however, to point to any emotional basis of the disease. Nevertheless, the pathogenesis of the spasmodic phenomena of the case remains obscure. Such spasmodic phenomena are often ascribed to hysteria, but such a supposition is entirely out of the question here. The patient has never manifested any hysterical symptoms up to the date of the appearance of this disease, near the sixtieth year of her life, when hysteria may hardly be said to have its first onset. It is possible that the respiratory disturbance here considered is due to some fine changes

of the respiratory nervous fibres, often observed in the melancholiac. Every one is familiar with the groaning, moaning and sighs so characteristic of the melancholic state. We have one patient, a melancholiac, in the Alexeievskaja Hospital, who always suffers from characteristic hiccoughs with every sigh. These hiccoughs are, no doubt, due to diaphragmatic spasms. As for the phenomena in the patient considered in this paper, it may be that the respiratory activity of the sub-cortical centres were affected by the condition of anæmia that was caused by the repeated nose-bleeds. The senile changes may also have some bearing of a similar nature. In conjunction with this, the physical and psychic degeneracy of the patient must not be lost sight of as having some connection with the morbid manifestation.

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#### EXPLANATION OF TRACINGS.

Tracing No. 1. During the "cry."

Tracing No. 2. During the calm.

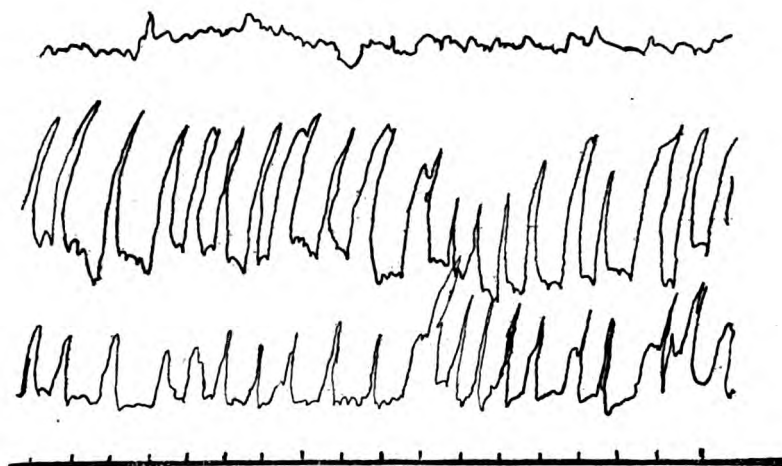
Tracing No. 3. During the "cry."

Tracing No. 4. During the "cry."

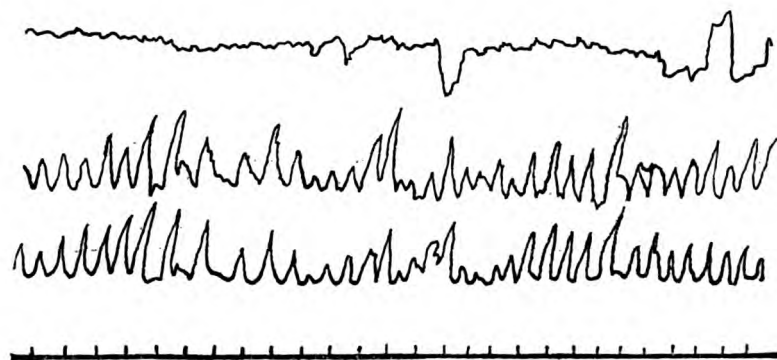
The middle tracings represent the chest and the lower the abdominal breathing.

The ascending lines correspond to the phase of inspiration, the descending ones to the phase of expiration.

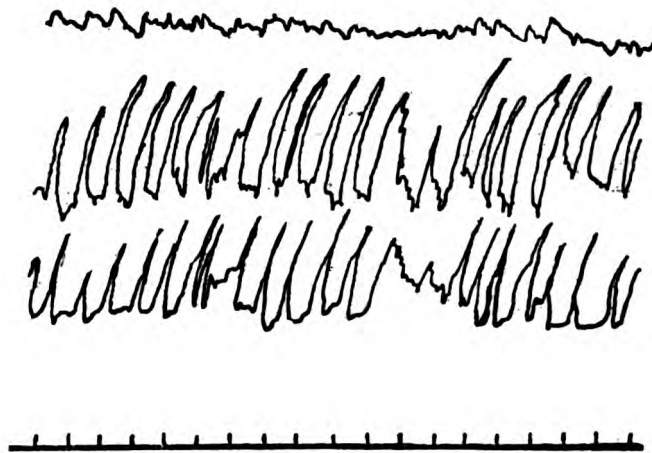




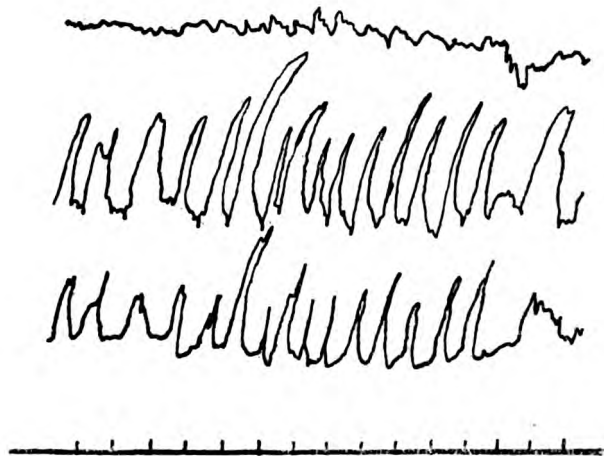
No. 1.



No. 2.



No. 3.



No. 4

# IDIOT AND IMBECILE CHILDREN.

## VARIOUS CAUSES OF IDIOCY AND IMBECILITY.

### *The Relation of Alcoholism in the Parent to Idiocy and Imbecility of the Offspring.*

#### A CLINICAL STUDY.

BY LOUISE G. ROBINOVITCH, B. ÈS L. (PARIS), M.D.

*Foreign Associate Member Medico-Psychological Society, Paris.  
Member N. Y. Academy of Medicine.*

(Continued\*).

#### CHAPTER II.

##### THE RELATION OF ALCOHOLISM IN THE PARENT TO IDIOCY AND IMBECILITY OF THE OFFSPRING.

*Alcohol, if indulged in by the parent, is apt to cause idiocy or imbecility of the offspring.—Case.—General remarks on the relation of alcoholism in the parent to the birth-rate, death-rate, validity and invalidity of their children.—Cases.—Statistical data of one hundred idiot and imbecile children.*

The excessive use of alcohol by the parents is certain to cause varied forms of psychic diseases in the offspring. Indeed, even where the parent is not habitually addicted to the use of liquor, but simply indulges in it excessively for a short period immediately preceding the time of conception, a pathological condition may confidently be looked for in the offspring. This fact is almost too well known to the observant clinician to require expatiation here. As an example, however, a case is cited, although it is not entirely typical.

CASE XII.—*Epilepsy with Mental Debility.—The Father was Always Temperate, But Indulged in Alcohol Excessively Immediately Before the Time of the Conception of the Patient.*

W. E., 27 years old, entered the Admission Bureau, Ste. Anne

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\*See Journal of Mental Pathology, Vol. I., No. 1., 1901.

Asylum, April 15, 1899. The father had always suffered from weakness of the left side of the body, and at the age of 54 had an apoplectiform attack, which left him with a hemiplegia. He never indulged in alcoholic beverages, other than during the time immediately preceding the conception of the patient, at which time he drank to excess. The patient has had epilepsy since birth, and is suffering from mental debility. He is unable to care for himself. No other children were born of these parents.

Dr. Bourneville, whose authoritative statements on the clinical aspect of the subject of idiocy and of idiot and imbecile children are beyond dispute, shows in his report of one thousand cases that in fifty-seven out of that number conception took place during alcoholic intoxication of parents who were not alcoholics.

The pathological changes caused by the long use of alcohol are well known to all so far as the microscope can reveal them. Drs. Magnan, Joffroy, Bevan Lewis and others have fully described them. Clinical proof abounds beyond contest to the effect that alcoholism in the parent is responsible for idiocy and imbecility of the offspring in more than fifty per cent. of all cases. A glance at a few cases taken at random shows how prevalent this cause is. Not only does one find that alcoholism in the parent causes idiocy and imbecility in the child, but also that most of the children of such parents die during infancy; that the most general cause of death of those children is meningitis with convulsions; that when alcoholic parents give birth to one idiot or imbecile child, the succeeding ones are also apt to be idiots and imbeciles, with or without accompanying convulsive attacks; that, as a rule, the alcoholic family gives birth to a small number of children; that where many children are born most of them generally die during infancy, or that there are many miscarriages.

The workings of alcoholism in the parent in causing psychic diseases in the offspring other than idiocy and imbecility are treated of elsewhere. One need only glance at the few cases taken hap-hazard to realize the enormity of the evil that alcoholism brings in its train.

CASE XIII.—R. M., 12 years old, entered the Admission Bureau at the Ste. Anne Asylum June 1, 1899. Her father is an alcoholic; the mother is healthy. Six children were born, and there was one miscarriage. Two of the children died of "convulsions" and three of meningitis. The patient is suffering from imbecility. Her impaired faculties were late in developing; she first walked at the age of four, and first talked when seven years old.

CASE XIV.—L. G. V., 4 years old, entered the Admission Bu-

reau at the Ste. Anne Asylum March 29, 1899. The father is a chronic alcoholic, and is now serving a term of imprisonment for having committed rape on his own daughter. No other information could be obtained as to the family history. The patient is suffering from idiocy and infantile paralysis.

CASES XV. AND XVI.—L. D. and L. A. are twin children; both entered the Admission Bureau at the Ste. Anne Asylum March 27, 1899. The father is a gardener and drinks moderately. The mother is healthy. She has had sixteen children and two miscarriages. Nine of the children are living; the two patients are the fifth and sixth children. Both are suffering from imbecility.

CASE XVII.—G. J., 7 years old, entered the Admission Bureau, Ste. Anne Asylum, November, 1898. His father is a liquor dealer, and is an alcoholic. He died of typhoid fever at the age of 50. The mother is nervous, and all the aunts and uncles on her side are nervous. The patient's brother, 13 years old, has a congenital amputation of the forearm. There are finger nails on the stump. One sister was still-born. The patient had convulsions at six months for the first time, and he is now subject to epilepsy with mental debility.

CASE XVIII.—*Epilepsy with mental debility.—Of twelve brothers and sisters, nine died of "convulsions" during infancy.—One died insane and epileptic at the age of 30; another has had epilepsy since 15 years of age; one had nocturnal incontinence of the urine up to the age of twelve.—The father was a chronic alcoholic.*

B. G., 30 years old, entered the Admission Bureau, Ste. Anne Asylum, April 19, 1898. His father was a drunkard and died of multiple hemorrhages within twenty-four hours from the onset of the trouble. He was a hemophiliac. The mother has an umbilical hernia. Besides the patient she has had twelve children, whose record is as follows: One daughter died at the Ste. Anne Asylum at the age of 30, insane and epileptic; one son has been epileptic since he was 15 years old; he has attacks every eight days; the attacks are preceded by a premonitory aura and are characterized by loss of consciousness, biting of the tongue, frothy foam at the mouth and involuntary emission of urine. A daughter, who is well now, had nocturnal incontinence of urine up to the age of 12. The nine other children died of "convulsions" when young.

The patient has been a charge of the city since he was a child. He has always suffered from mental debility, and has not succeeded in learning to either read or write. Since 1884 he has been subject to epilepsy, and has been unable to attach himself

to any occupation. Every three or four days he has one or more fits; they are preceded by premonitory symptoms, which consist of either a headache, a heavy feeling in the stomach, or a sensation of suffocation. He screams before falling, then loses consciousness, foams at the mouth, passes urine involuntarily, and remains stupified after the attack is over. The attacks are particularly severe after he indulges freely in alcoholic excesses.

CASE XIX.—*Epilepsy with mental debility and perversion of the instincts.—Physical stigmata of degeneracy.—Alcoholism of the father.—Immoral conduct of the mother.—Alcoholism of the patient.—First appearance of convulsive attacks at the age of 13.—Rarity of the attacks at first; frequency of their occurrence increasing as the patient's alcoholic habit becomes firmly established.—Sensory aura.—Attempted suicide.*

H. B., 17 years old, entered the Admission Bureau, Ste. Anne Asylum, February 1, 1899. Her father has little education, and finds it quite natural to indulge daily in two litres of wine. He has not, however, suffered from any convulsive spells, and is free from syphilis. The mother is an immoral woman, but has never had any convulsive spells. Her sister, 26 years old, is suffering from chronic chorea. Three brothers are in good physical condition. There are no insane members in the parents' families. The patient's mother had many criminal abortions and one miscarriage of a macerated foetus eight months old.

The patient had a normal childhood, her father says, although she is the bearer of physical stigmata of degeneracy; her palate is ogival in form; she has always been violent with those around her, and often steals whatever comes to hand. To her father's knowledge she had convulsions for the first time when eleven years old. The first attack he noticed took place while the child was at dinner. Her face became red, then purple, and the facial muscles were seen to twitch. A short while after this she had an attack of vertigo, for the first time, he says, then others followed at frequent intervals. The spells of vertigo were short of duration, easy to overlook, "unless one watched for them carefully," he explains. Without premonitory symptoms the child's face grew pale of a sudden. The year following the onset of this ailment the patient's menses set in for the first time. The attacks then became of longer duration, lasting for from two to three minutes, and of more frequent occurrence, counting up to some twenty times daily. This was in 1894. She was obliged on that account to give up her work as an apprentice to a dressmaker, and in 1895 the attacks became more formidable in nature; she groaned before falling, the body inclined to the left, and there



were some slight convulsions on the right side; the lower lip curled, the facial expression became fixed, and there was unconscious loss of urine. About that time the patient acquired the habit of indulging heavily in alcoholic drinks. Her cousin, a girl about her own age, kept her company, and our patient thus found it easy to swallow daily two litres of wine, several glasses of rum and some absinthe. The alcoholic symptoms soon manifested themselves. She suffered from slight trembling of the hands, bad night dreams and professional hallucinations. At night she saw pass before her eyes images of playthings she handled in her amusements; there was also decided zoopsia: wild beasts were attacking her, snakes and other reptiles crept over her body, and she was falling into precipices when trying to run away from the terrifying scenes. Later on she had cramps in the arms and calves of the legs; a spell of melancholia set in, and she attempted to kill herself with a knife. In July of the same year the attacks became of a still severer nature. She now fell suddenly, so suddenly that there was no possibility of foreseeing the attack and of preventing her from dropping to the ground. The convulsions were marked in intensity, the mouth and the right side of the body, particularly, being involved. These attacks took place four times daily and endangered her life. Once she fell holding in her hands a petroleum lamp that was burning. Now and then, however, the attack was preceded by a sensory aura; she saw miniature men, very small in stature, looking as if they were at a great distance from her; with incandescent sticks they set fire to a stack of wood and wished to throw her into the blazing pile. This aura took place twice: once at night, and the second time while the patient was making a fire in the fireplace. Other pre-convulsive visions were more frequent, particularly those relating to the form of her hands and feet; the former appeared grotesquely tapering, and the latter presented a skeleton-like appearance. While she saw those things she experienced a peculiar feeling of thinness and slenderness of her limbs.

Alcoholism in itself, where existing in one or both parents, is quite sufficient a cause in over fifty per cent. of the cases to produce idiocy or imbecility in the offspring. When alcoholism is added to a neuro- or psychopathic heredity of the parents, the fate of the offspring becomes greatly imperilled. In the preceding case there exists, in addition to the alcoholic habit of the father, a most marked degenerate heredity on the mother's side. In the case that follows such two morbid factors are still more emphasized.

CASE XX.—*Idiocy with paraplegia and epileptiform attacks.—Convergent neuropathic heredity.—Alcoholism of the father.*

B. J., 13 years old, entered the Admission Bureau, Ste. Anne Asylum, May 4, 1899. Her father was a railroad employe and was addicted to alcoholic excesses; he also suffered from rheumatism. The mother had chorea when eight years old, but she recovered from this within the course of some months; she lisps when speaking. The maternal grandfather is nervous. The patient is an only child.

This child was born at full term, and was nursed by her mother. J. has contracted no diseases other than scarlet fever, which she had when four years old. The fontanelles were closed at the age of three. When one year old she could support herself on her feet, but could not walk; she could say "mamma" and "papa." This simple development of speech remained stationary until she was nine years old; she had not walked up to that time. At that age her parents noticed that her intelligence, such as it was, began to fail. In addition, she suffered from convulsions in the limbs, which first began when the child was four months old. No premonitory symptoms announced the coming of the attack; there was no loss of consciousness, but simply a spasmodic twitching of the limbs. The convulsions are characterized mostly by partial twitchings, consisting of an abrupt extension of the right leg particularly, the foot being well extended; then there is flexion of both legs. The patient also has major convulsive attacks, which are characterized by loss of consciousness, generalized convulsions of the face and limbs, which are followed by a period of stupor, the patient having no recollection of what has transpired during the attack; of occasional occurrences in the beginning these became more and more frequent, and now make their appearance daily. Her intelligence has become more and more impaired, so that she is now reduced to a state of complete idiocy. She is even unable to feed herself. Her legs are paralyzed, and the muscles atrophied and rigid, and she is filthy. The patellar reflexes are exaggerated, the foot reflexes are much more marked on the left side, and the patient uses the left hand in preference to the right. She menstruated for the first time when twelve and one-half years old, but the flow is irregular in its periodic occurrence.

CASE XXI.—*Imbecility with turbulence.—Porencephalus with muscular contractures.—Epileptiform attacks.—Father alcoholic.*

D. E., 36 years old, entered the Admission Bureau, Ste. Anne Asylum, November 3, 1898. His father died of a strangulated hernia. He was a blacksmith and indulged in alcoholic excesses. The mother is 71 years old and healthy. The full family history cannot be had.

The patient was born at full term. When six months old he had the first of his convulsive attacks, and these have persisted to this day. He has muscular contractures of the limbs, is unable to hold himself upon his legs or to use his hands. He has never walked and has never talked to any greater extent than that of pronouncing a few simple words imperfectly. In a word, he has porencephalus, is an imbecile and has epileptiform attacks.

*CASE XXII.—Mental debility, vagrancy and perversion of the instincts.—A twin brother also suffers from mental debility.—Another brother is turbulent and troublesome.—The father is an alcoholic.*

H. A., 12 years old, entered the Admission Bureau, Ste. Anne Asylum, April 12, 1899. The father was an alcoholic, and died of pulmonary tuberculosis. The mother is nervous. The full family history cannot be obtained. The patient's twin brother is suffering from scrofula and mental debility; he is apathetic and neglected. Another brother, nine years old, is said to be in good physical condition, but is turbulent and troublesome.

The patient suffers from mental debility, with perversion of the instincts and spells of vertigo. He is given to vagrancy, and disappears from home for days at a time; on returning he refuses to give any account of himself.

*CASE XXIII.—Idiocy of three sisters, none being able to talk, to walk, or to attend to their wants. One, A., has, in addition, paraplegia and epileptiform attacks.—Absence of heredity, excepting that a cousin on the paternal side never walked until eight years old, when she died.—The father of the patients is an alcoholic.*

V. M., 12 years old, An., 9 years old, and Ad., 5 years old, entered the Admission Bureau, Ste. Anne Asylum, May 12, 1897. Their father states that he has never had any convulsions or serious diseases. The relatives on his side are all well, both on the ascending and the collateral branches. His brother, however, who is healthy himself, had a child who could not walk until she was eight years old, at which time she died. The father of the patients indulges in alcoholic drink. The mother, 35 years old, is in good physical condition and temperate; she has never had any nervous spells, convulsions or other diseases. Of the four children to whom she gave birth, one was born prematurely, and died at eight days; the others are the three sisters—the patients. The mother's sister, who enjoys normal health now, began to walk first quite late in childhood. None of her family, direct or collateral, were ever insane, nor have any of them committed suicide.

The eldest of the patients, V. M., was conceived when the father was 24 years and the mother 23 years old. There was no consanguinal relationship between the parents, but the father indulged in alcoholic excesses. The pregnancy was a normal one, and so was the delivery. The patient had convulsions when one month old, but those disappeared, and she is now free from them. She was brought up by bottle-feeding, and was weaned when twenty-eight months old. She began to walk when two and one-half years old, but has never since that time been able to walk without being supported. The dentition was normal, but she has never talked, expressing her wants by giving unintelligible shrieks. She has always been filthy; her intelligence has never developed. At times she becomes excited and gesticulates.

An. is also an idiot, has paraplegia and epileptiform attacks.  
Ad. is an idiot, and is filthy.

Three years ago, when the writer tabulated the histories of one hundred children who entered the Admission Bureau, Ste. Anne Asylum, Paris, it was found that sixty-eight per cent. of these patients were the offspring of alcoholic parents. So large did this percentage seem then that the paper was put aside as requiring verification. Later, however, on coming across Dr. Bourneville's report, the accuracy of the compilation was confirmed by the percentages arrived at by him.

Dr. Bourneville states in his report of the Bicêtre Asylum, p. 205 (1897):

"..... we report statistics relating to the children of every category, admitted from 1880 to 1890. Alcoholism has been found:

In the father of.....	471	children.
In the mother of .....	84	"
In both parents of .....	65	"
Information cannot be had in the cases of....	171	"
Alcoholism is absent in the parents of.....	209	"

Total .....1,000 children.

"In fifty-seven cases conception took place during alcoholic intoxication of the father. In twenty-four cases there is a great probability that the same was also true, but it is uncertain as a fact.

"Such as it is, the preceding statistical report brings out once more the considerable role which alcoholism plays in the production of degenerate children, idiots, epileptics, moral imbeciles, the unstable and the perverted. From this the imperious necessity appears of taking energetic measures to check the development of alcoholism."

To analyze the significance of Dr. Bourneville's figures:—of these 1,000 cases, information could not be had in 171, leaving for consideration 829. Of this number, 209 have sober parents. Six hundred and twenty children then, out of 829, are the offspring of alcoholic parents directly traceable. This is a percentage of 74 plus. This number includes all categories of children admitted to Bicêtre, such as idiots, imbeciles, epileptics, morbid criminals, etc. In the writer's table appended to this paper, one category only of children is studied, namely, idiots and imbeciles; some of these are or are not subject at the same time to epilepsy or epileptiform attacks. Of one hundred such children, fifty-three have alcoholic fathers, one of the cases showing that both parents are alcoholic; in one case the mother is an alcoholic, making in all fifty-four per cent. alcoholic parents out of one hundred cases. Large as this percentage is, it is yet most conservative, as all doubtful cases have been eliminated as useless for the purpose of this study. The criminal children also have been eliminated from this list, and a separate study has been made of them.\*

In this separate treatise it was developed that in forty-eight per cent. of the cases of criminal children examined, alcoholic parents were discovered. Looking over the statistics quoted, the conclusion becomes inevitable that the percentages of alcoholic parents obtained three years before the present paper was prepared were not at all exaggerated.

The unfortunate psycho-pathological condition of the offspring is not the only thing that forces itself on our attention in examining the family of the alcoholic. The birth-rate itself is affected and becomes reduced. In the appended abstract of table the children of 100 families are listed. Counting the number of offspring of these families who were not under treatment, as well as those who were, a grand total of only 255 is found—comprising the total number of births in families of the lower and middle classes. Further analyzing we find that 155 children, other than the patients, were born; of these, sixty died, seventy are said to be in good physical condition, and twenty-three are not in good condition.

### CONCLUSIONS.

The causes of idiocy and imbecility are many and varied. Subtle causes, such as maternal impressions during pregnancy, must not be accepted without searching for more substantial underlying causes.

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\*The paper on this subject was read before the International Congress of Medicine, Section on Psychiatry, Paris, 1900.

Hereditary degeneracy, psychoses and psycho-neuroses of the parents are some of the causes.

Acute infectious and contagious diseases of the mother during pregnancy are causes, but additional search must always be made for underlying causes other than these.

Syphilis is a cause.

Auto-infection, myxoedema, is a cause.

If the acute contagious and infectious diseases during childhood leave the child an idiot or an imbecile, that child's heredity must be well scrutinized, as the latter is most certainly the underlying cause.

Alcoholism of the parents is the major cause responsible for the birth of idiot and imbecile children, according to the study of the cases cited.

Alcoholism of the parents not only causes idiocy and imbecility of the offspring, but also acts as a strong factor in reducing the birth-rate and increasing the death-rate.

Children of alcoholic parents, if not idiots or imbeciles, are apt to be invalid in many other ways.

Children of alcoholic parents generally die in early infancy of meningitis.

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All the cases and documents mentioned in this paper were examined in Dr. Magnan's wards.



ABSTRACT\*  
OF  
STATISTICAL TABLE  
OF  
One Hundred Idiotic and Imbecile Children  
ADMITTED TO THE  
Ste. Anne Asylum, Paris.

Total Children born	- - - - -	255
Died,	- - - - 53	
Miscarried,	- - - - 7	60
Living,	- - - - -	195
AT HOME:		
Healthy,	- - - - 72	
Not Healthy,	- - - - 23	95
IN ASYLUM:		100

DIRECT ALCOHOLIC HEREDITY

OF THE ONE HUNDRED.

Father Alcoholic,	- - -	52
Mother Alcoholic,	- - -	1
Both Parents Alcoholic,	- - -	1
Total,	- - - - -	54

Grand-parents Alcoholic,	- - - - -	7
Collateral Members of family Alcoholic,	- - -	1

Physical Stigmata of Degeneracy of the Offspring,	- - -	4
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PATHOLOGICAL CONDITION

PHYSICAL	OF	PSYCHIC
10	Father	24
14	Mother	38
5	Grand-parents	7
5	Members of family	7

Absence of Morbid heredity,	- - - - -	2
Indirect Morbid heredity,	- - - - -	3
Maternal emotion during Pregnancy with patient,	- - -	2

\* The full statistical table cannot be published in this number because of lack of space.—Ed.

# THE JOURNAL OF MENTAL PATHOLOGY.

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Original researches and other MSS. will be carefully considered, and if found unsuitable will be returned, if accompanied by stamped, self-addressed envelope. News items from Institutions will be given all space available.

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We print in this issue an interesting letter from "J. R." to which we call the attention of the legal as well as the medical profession. A number of leading questions are touched on in this communication which are of grave import and significance. We shall be pleased to receive and publish communications dealing with the subject matter referred to in this letter and earnestly invite such correspondence.

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The question of the fitness of male attendants for employment in insane wards seems to be receiving more and more attention. We cannot refrain from again pointing out the desirability of the employment of women as attendants, or nurses, for the insane, to the greatest degree possible. At Moscow, Russia, an attempt is being made to introduce this system. Sisters of Charity are assigned to care for the insane at the Alexander III. Hospital (according to a report made by M. Timopheiev) and the experiment, as first made in the infirmary, seems to have proven satisfactory, men being supplied only as heavy manual labor necessitates their presence.

The tales of alleged broken bones, bruises, deformations and even inflictions of death, still continue cropping out from behind the firmly-fastened asylum doors. Common humanity prompts the inquiry: "How long, oh, Lord! how long?" How long will it be before these most unfortunate of the unfortunate—the insane—will find a public champion who will throw wide open to science the now barred doors of the asylums, who will brush away the clogging cobwebs of antiquated "boarding-house" treatment, and accord to the mentally ill at least the same consideration that is given even to the criminal?

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The effort being made by Mr. Arthur MacDonald, of the Department of Education, Washington, to induce the Government to establish a national psycho-physical laboratory, is deserving of all commendation, and it is earnestly to be hoped that the action of the Government will be favorable. The arguments for this cause are too familiar and axiomatic to require exploitation. The proposition has already received the indorsement of a number of medical societies in this country, and there is no question that the establishment of such a laboratory would be hailed with delight by the entire profession, as a step in the right direction.

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The appointment of Dr. Frederick Peterson as President of the State Commission in Lunacy, of New York, seems to have met with the approval of the local medical world. We have no doubt that Dr. Peterson will inaugurate a regime which will mark a notable epoch of progress in the history of the lunacy department of this State.

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Professor Giulio Bizzozero, of Turin, died April 8, 1901, after a short illness. The world of science has lost in him a most distinguished student, whose influence in promoting the interests of learning was felt and appreciated by all who came in contact with him or his work. The "Archivio per le Scienze Mediche," of which he was Director, mourns his loss, as do all those who knew him.

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## PSYCHO-PHYSICAL LABORATORY.

The Chicago Academy of Medicine and the Texas State Medical Society have adopted the following resolution:

RESOLVED, That we are in favor of the establishment of a Psycho-Physical Laboratory in the Department of the Interior at Washington for the practical application of physiological psychology to sociological and abnormal or pathological data, especially as found in institutions for the criminal, pauper and defective classes and in hospitals and also as may be observed in schools and other institutions.

The above resolution was also adopted by the American Medical Association at the St. Paul Convention.

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New York, July 2, 1901.

*Editor* JOURNAL OF MENTAL PATHOLOGY:

No question in the realm of psychopathology probably possesses greater interest for the general public at the present day than that affecting the status of the insane criminal and the criminal insane before the bar of justice. During the last few years the plea of insanity as a mitigating circumstance in the determination of responsibility for crime has become so familiar that the community at large finds itself face to face with an important problem which must soon receive a stated and well defined position in the general scheme of civilized society.

On the other hand, there is little question that the so-called "expert alienists" have driven the "insanity plea" at a pace calculated to infuse a sense of distrust at its mere mention in the mind of many a conscientious member of the bench.

Leaving aside this phase of the problem, however, and reaching directly to the main question in point—the thinking man who finds it necessary to consider insanity in its various relations to crime discovers himself confronted with a series of propositions so magnitudinous in their potentialities as to warrant their most careful consideration by those best fitted to study them, and it is with the hope of evoking responses from sources of this character that this letter is forwarded.

## POINTS AT ISSUE.

Consider, then, the commission of a crime by one of three persons. For the sake of acute sensibility, we will assume that the word "crime," as used in this communication, refers to a "capital"

crime. The crime having been committed and the person brought before the bar of justice, the first plea we will consider is made, i. e., that the offender is insane and committed the crime while insane. The second hypothesis, as a pure hypothesis to be considered, will be a plea that the person accused, while a criminal ordinarily, was insane when engaged in the commission of this particular crime, and the third hypothesis we will examine will be the plea that the offender was admittedly a criminal habitually and, therefore, insane habitually, also.

This, then, is the elemental point: Where, when and in what manner are we to begin our discrimination between the sporadic criminal, the habitual criminal, the evolutionary insane criminal, the sporadic insane criminal, the sporadic criminal insane and the hereditary criminal insane?

To say that this precipitates the old discussion as to what constitutes crime and that it brings up again the threadbare arguments, pro and con, regarding hereditary responsibility, etc., is not to answer the question. These various points require authoritative elucidation. They require the establishment of an absolute series of standpoints from which logical deductions and conclusions may be drawn by the community. The time has arrived when we must either brush aside in its entirety the network of pleas of insanity or else must have an acceptable system by means of which we can treat every plea of insanity according to its degree. What punitive or exemplary treatment, for instance, are we to administer to the criminal insane as distinguished from the insane criminal, and how are we to treat the criminal who becomes insane after the commission of the crime, and how are we to apply the term of hospital treatment as against a term of sentence?

Regarding this matter from the point of view of the well-being and safety of the community—how much right, if any, have we to accept a plea of temporary insanity and to release a criminal after a short term of incarceration in an asylum? The argument is often made that punishment is not inflicted on criminals as a direct retribution for offence, but rather as a coercive exemplification for the deterring of others. A person having been intelligently and unquestionably adjudged as being more favorably predisposed to the commission of crime than is a normal person, because of the former's pathological mental condition, are we justified in turning loose upon the community one so predisposed to crime, or rather predisposed to evolution of a condition in him during which crime may easily be resultant, as in the case of an epileptic, for instance?

There is no question that, broadly speaking, the main point at issue is whether the individual or the community is most to be considered in the application of law and justice to subjects in various conditions of psychic impairment.

These are questions of great moment and immediate interest. If any basis of conclusive argument and decision exists on these matters, it is a public duty to intelligently lay it before the laity, as well as before the profession.

J. R.



## ADDRESS TO THE SECTION OF PSYCHIATRY,

BY DR. V. MAGNAN,

*To the International Congress of Medicine, Paris, 1900.*

Gentlemen: At the opening of this session the painful duty devolves on me of speaking to you of the death of one of our most eminent co-workers. Tender we the most profound respect to the memory of Dr. Korsakoff, of Moscow, who was torn away from his family, friends, disciples and patients at the very moment when he was putting the finishing touches to his report on clinotherapy, a task he had undertaken regardless of his failing health. He passed away in the thick of his work, at the height of his vast and vigorous intellect, leaving behind him, however, not only the record of an undisputed savant but also the memory of a modest and discreet philanthropist whose benevolent influence may be measured to-day by the immense void that echoes drearily to the lament of his death.

Nor is this, unfortunately, the only affliction we have suffered. It is my sad task to have to announce to you the death of our most beloved and distinguished collaborator, Dr. Bouchereau, member of the Organization Committee.

The Congress of 1900 seems destined to mark an epoch in the history of psychiatry. The great movement that has already marked the progress of medicine in general as well as of the biological sciences, and that has caused an effort to manifest itself looking to the assurance of intelligent treatment for the insane, is attracting the attention of alienists the world over. I am not one of those metaphysical psychologists who base their treatises on speculation. The majority of alienists began by direct observation of facts. So, if in the beginning they, guided by certain predominating phenomena, bestowed on a symptom the value of a whole morbid entity, thus creating monomanias,—progress, nevertheless, soon began, when general paralysis and the significance of the different morbid manifestations began to be understood. The new clinical method allots to every phenomenon its corresponding rank, not only according to its form, variety and substance but also and especially according to its evolution. The various phases of a disease are no longer denominated as distinct morbid varieties; they are, on the contrary, analyzed so as to reconstitute the past and foresee the future. This method brings forth the successive filiation of phenomena, beginning with the initial cause and ending with the terminative effect, so that the diagnosis carries with it the prognosis.

Pathological anatomy, on the other hand, as well as careful examination of the organs, the progress in histology and physiological experimentation, confirming and elucidating clinical study, have brought about much progress in cerebral localization which has been of great help in the study of mental modifications as related to the activity of certain centres.

Again, the use of more rigorous methods of experimentation has helped us to penetrate more profoundly into the mysteries of some primordial phenomena such as visual, auditory and motor sensations, etc. All this accumulated material is being made use of by psycho-physiologists who have adopted the objective method and have thus enlarged the field of observation. By means of normal and pathological study they have been enabled to follow the development and the evolutionary course of the intellectual faculties and then the progressive course of the latter and finally

the conditions under which these faculties become abolished and disappear. M. Th. Ribot's excellent researches on the memory, will, personality and attention have proven how rich the fields of investigation are and have thrown much light on clinical points that had hitherto remained obscure. Nor is this all. The great scientific movement started by Pasteur's admirable discoveries, Bouchard's works on nutrition, Gautier's researches on the biological actions and the chemical changes of the living cell, the investigations on the composition of the liquids in the body during health and disease,—all these have led to noteworthy results; they have opened larger horizons. The new doctrines on infection and auto-intoxication have discovered the infectious psychoses with the microbes and toxins, visceral psychoses with the auto-intoxications due to lesions of the organs, and finally the diathetic psychoses in which infections and auto-intoxications may intervene. Simultaneously, and in supreme flight towards an ideal pathogenesis, it is even attempted to determine chemical formulæ proper to every morbid state!

It is not displeasing to witness this ambitious soaring. But whatever the flight of our imagination may be, the immutable clinic rebels against hypotheses; it furnishes, every day, information that prevents our straying from the paths of logical deduction and sternly and inevitably brings us back to the reality of facts. The infectious agents, microbes, toxins, poisons of the system depending on the incomplete nutritive elaboration may, doubtless, provoke certain psychic disturbances, as well as confusion, mental obtusion and amnesia of various natures, according to the seat and the extent of the regions affected; these products alone, however, cannot generate a pure psychosis, a systematized delirium, a mania, a melancholia, an impulse or an obsession,—the stigmata so characteristic of degeneracy. What is true of other diseases is also true of insanity. Can a psoriasis or an eczema be produced by a cutaneous irritation, no matter how intense the irritation may be, if the sufferer be not predisposed to the production of these skin affections? The development of a psychosis or of a systematized delirium requires, first of all, a prepared soil,—a predisposition; then only can the morbid cause, acting on a brain in a condition of least resistance, give birth to insanity: Otherwise it would be inexplicable that so many uræmic, tubercular, cancerous, syphilitic and other subjects should escape insanity.

Tracing this subject further: Reading the cases of psychoses attributed to diatheses, visceral diseases and infections, one is astonished by the symptomatic polymorphism which accompanies the diseases, and it readily becomes apparent why one should hesitate to attribute to one toxic cause such varied disturbances; we must conclude that aside from the particular poison in question, the subject himself, with his personal qualities, qualifications and different degrees of predisposition, must play an important part in the entire morbid result. Examine the case of that most unfortunately frequent intoxication,—the alcoholic. What do we observe in simple cases? A delirium, always similar, made up, in its entirety of painful hallucinations either multiple, mobile, professional or resembling the occurrences of the day. This delirium is of a fixed evolution; it first manifests itself at night, then both at night and in the daytime; hallucinations promptly disappear in the daytime, continue during some nights and cease completely in less than a week if no new cause for excitation is added. The delirium passes as a dream which does not resist the realities on

awaking. While such is an alcoholic attack in a subject free from all hereditary stigma, what varieties does not the predisposed or degenerate alcoholic present! In most cases the hallucinatory delirium does not differ during the first two or three days of its appearance, but once the alcoholic spell is over, the predisposed alcoholic becomes an individualized case, i. e., a subject with various degrees of predisposition: the psychic disturbances which survive the attack may assume any clinical form, from mania and melancholia, and from the broadest polymorphous delirium, to the most narrowly systematized. The delirii were not generated by alcohol; this poison simply acted as an exciting cause.

All these researches have drawn attention to the somatic disturbances that accompany insanity and many therapeutic means have been applied for their correction. Opothrapy, electrotherapy and the hypodermatic method have been used, not to speak of surgical intervention! How evident it is that we are yet in a state of blind groping, which makes us accept many things under reserve. The one field on which the psychiatrists must meet in common is the necessity of assuring better hygiene and protection to the insane, while giving them more liberty.

For a long time, the asylum was considered as the only means of treatment for the insane in existence; in the asylum were massed together all the patients; little by little, after various trials and attempts, the buildings were divided in different sections; there were cells for the violent, different kinds of cells for the semi-violent, for the quiet, the weak, and the uncleanly and finally, there was the infirmary; these, with the work rooms, general wards, and, lately, land for culture, completed an asylum of the ordinary kind, but in the evening the entire asylum population had to return to the quarters enclosed by walls, veritable wolves' dens, in which the most conspicuous things were the doors with special locks.

A clearer appreciation of and a keener insight into the conditions and needs of the insane, have, during the last few years, caused a movement and a stirring of opinion which tend to invigorate and transform the old organization. Recently, the opinion has become almost unanimous that the senile demented, the organic demented and the inoffensive chronic patients who constitute the main element of overcrowding in asylums, should be placed in surroundings better fitted to their condition. Among the many modes of caring for these patients, treatment at home, hospital-asylum treatment and family colonization are prominent and recognized.

Home treatment is desirable, but impractical in many cases.

The hospital-asylum, widely open, especially suits the demented requiring particular treatment which can most efficaciously be administered by experienced help.

Family colonization answers the requirements of the largest number of patients, and as is known, consists of two kinds: the patients are either dispersed on a more or less large stretch of land, or else are grouped in close quarters. The first system is carried on with success in Scotland, and is known as the "private dwelling" system, so well instituted by the distinguished ex-Commissioner in Lunacy, Sir John Sibbald. The second system, organized in Gheel and Lierneux, Belgium, and, within the last few years, in Dun-sur-Auron and Ainay-le-Château, groups the patients in the same locality, thus placing them under the physicians' immediate care and watch. In Gheel, the hospital-asylum system permits the re-

ception of all categories of patients, who may, at the earliest signs of convalescence, be sent out to lead a free life in the colony. At Dun-sur-Auron the infirmary of the Beauregard Asylum being close at hand makes it possible to receive in addition to demented, some chronic cases having hallucinations and systematized delirium.

A second and third group of patients whom it is desirable to exclude from the asylum are the epileptic and the alcoholic. For the former, agricultural colonization and detached cottages are indicated, with an infirmary at a convenient distance.

As for the alcoholic,—the bringing about of reform is much hindered by the absence in many countries, of special legislation. Besides, the question is a broad one, involving the habitual drunkard and the alcoholized, delirious and insane or nervous patients exhibiting alcoholism as an exciting cause for the onset of the disease. Some enthusiastic reformers are bent on reforming all sides of the question at one and the same time; others, more practical, modestly seek the good will of the government, asking for separate housing; others advocate the cause of the alcoholics with delirium who now crowd the asylums. In the United States, Switzerland, Germany and England private initiative has brought into existence retreats and work rooms for the habitual drunkard; elsewhere the attempt is being made to establish special quarters for these patients until the time arrives when a more complete and efficacious organization can be founded.

The idiots and imbeciles also encumber the asylums. It is best for them to be housed together so that they may receive hygienic care and medico-pedagogic treatment together. An infirmary must be provided in the vicinity of the school and work room. This sort of housing is an existing reality in some countries, and the Bicêtre Asylum, under the active initiative of M. Bourneville, presents a fine example of such an institution.

The last group it is desirable to exclude from the asylum is the one comprising the insane criminals: not the general paralytic or the one clearly insane, who has committed a crime, but the degenerate moral insane who is perpetually leaving the prison to go to the asylum and leaving the asylum only to again fetch up in prison. The presence of these latter subjects in an asylum is almost always a cause of disturbance, and it seems unwise to any longer defer the founding of institutions like Broadmoor, with appropriate rules and even legislation.

When these different groups of inmates have been eliminated, the asylum will have its proper population: acute cases, who in many asylums, are to-day given the "bed treatment," which is the natural sequence of non-restraint. As this treatment will be especially discussed at this Congress, I do not go into it in detail.

The asylum, reduced to its essential elements, should consist of a hospital for the acute cases, of supervised quarters for the quiet but dangerous cases and of a colony (as at Alts-Scherbitz), with an open door for the convalescent.

You see, gentlemen, what a vast subject for study we have before us from the scientific, the practical, and the administrative points of view! At no other epoch, perhaps, have such important and numerous problems presented themselves to the mind of the psychiatrist. Our Congress will, I have no doubt, throw a glowing light on some of the questions. It will

not solve all of these, but we can safely trust to the future. All of us are united here with one aim in view,—an ardent and generous aim: to do our utmost to bring about the amelioration of the condition of the unfortunates who are the victims of that most cruel of misfortunes,—the loss of reason.

**VERBAL MOTOR HALLUCINATIONS IN GENERAL PARALYSIS.**—*Dr. Paul Sérieux.*—Among the verbal motor hallucinations there is a special category bearing on the movements of articulation of the words. These verbal-motor hallucinations consist essentially in the reproduction of kinesthetic images formed during the articulation of words; this is done with a pathological intensity, without voluntary intervention. The verbal motor hallucinations, like all hallucinatory disturbances, are due to an irritation of a given point in the cortex (Broca's centre). The erethism of this centre calls forth the animation of the stored up articular, muscular and tactile sensations of the organs of phonation. When these motor images are thus placed peripherally, the patient feels the movement of the production of articulation of words in his organs (buccal cavity, larynx, etc.) He *perceives words* without the intervention of tonal images: the sense of hearing does not take part in the procedure, and when it does—it is only in an accessory manner. Whereas those with hallucinations of hearing *hear sonorous* voices that are convincing to the patient, sounding at the ear with all the characteristics of a normal auditory sensation, the subjects afflicted with verbal motor hallucinations speak of *interior, secret voices* without *sound, which speak in thought,—whisper*. Certain of these patients claim that they possess a sixth sense which is a muscular sense. They do not hear the voices in the ears but in the mouth, throat, or tongue; that is to say, in the organs that take part in articulation.

Among the various episodic manifestations in general paralysis the verbal motor hallucinations have rarely been observed, probably on account of the usually present lesions of Broca's centre (aphasia). The cases reported are so few that their history may be given in a few lines.

In 1880, Mendel pointed out a case of general paralysis which presented according to the author, *obsessions*, but which on careful reading seem to have been nothing other than verbal motor hallucinations. He had voices in his tongue, etc. In 1881, Girma reported three cases of general paralysis which had psychic hallucinations, but he gives no detailed accounts.

In 1891, a general paralytic attracted our attention by the fact that there existed in the case verbal motor hallucinations. The latter had been present over a year, without being accompanied by hallucinations of hearing. The spontaneous description given by the woman was most characteristic: "*They speak in my mouth*," she said; "*I do not hear the words, but I understand them. They whisper to me. They telephone in my mouth, in my teeth.*"

When asked whether she heard voices, she protested energetically, saying:

"*I do not hear voices. I hear nothing in my ears. It is neither a man's nor a woman's voice. I hear shouting in my mouth.*"

One day she pointed out a patient who suffered from hallucinations of



hearing and said: "Mme. X. hears voices, but I hear none. I know very well what it means to hear voices; I heard some when I was crazy." (It is true that the patient had hallucinations of hearing during the first few months of her stay in the asylum.) "They speak in my mouth, but I *hear nothing in my ears.*" These hallucinatory disturbances were almost always accompanied by movements of involuntary mastication and grinding of the teeth (irradiation of the excitation of Broca's centre to the motor centre of the trigeminal, which is contiguous to the former) and caused ideas of persecution.

In 1896, Dr. Jules Henry reported two cases of verbal motor hallucinations in the general paralytics. Finally, the following is my own case, which is published because of the rarity of such reports.

The patient is a general paralytic. The verbal motor hallucinations are localized in the throat; there is a coexistence of symptoms pointing toward the presence of lesions in the left cerebral hemisphere. The case presents: Paralytic dementia. Verbal motor hallucinations localized in the throat. Automatic speech. Secondary auditory hallucinations. Jacksonian epilepsy on the right side; contraction of the tongue. Melancholia. The information about the patient is that given by herself. She acknowledged having been addicted to alcoholic excesses during the last two years, taking rum in the morning, absinthe and marc through the day. She had an abortion performed on herself when eighteen years old; she had syphilis and was treated for mucous patches at the age of twenty-six; she had two legitimate abortions; she was arrested recently for drunkenness. From a somatic standpoint, there was hesitation of speech, tremor of the tongue, hyperesthesia of the lower limbs. No hemianesthesia. The left tibia was the seat of an hyperostosis. Since the age of four she has been suffering from deafness, more marked on the left side. She complains of violent headaches, particularly at night, and of insomnia. She has had epileptiform attacks, almost always confined to the right side of the body.

From a psychical standpoint, there is considerable intellectual enfeeblement, the memory being quite impaired; she does not know her age, saying that she is forty-nine years old, whereas she is only forty-three; she thinks that this year is 1873.

On the day of her admission she was depressed, saying that *she insulted everybody*, that she is called "*thief.*" She is told that she has killed her child, and adds that she "*speaks to herself*" and that she says "*wicked things.*" The existence of hallucinatory disturbances seemed probable, and an examination later revealed their nature. About a fortnight after admission she declared that *she had something in her throat.* "*I speak by myself inwardly; it is not my mouth that speaks, but the throat. What I say by the throat goes up into the ears; the ears repeat what I say in the throat,*" she explained. She further states that she was never called thief in the ears. "*It is the throat that begins,*" it is she herself who calls herself thief, and then the word is repeated in the ear, particularly in the right ear.

She calls a patient "hunchback," and it is the throat that does it. When eating or resting "the throat speaks"; she has had this some time. Before commencing to "speak in the throat" she had auditory hallucinations, hearing the voice call her names. The patient was transferred to another asylum and finally died in 1893, but the record furnishes no information, other than that death was due to cerebral hemorrhage.



The patient's own words speak for the presence of verbal motor hallucinations: "It is the throat that begins. . . . It is I myself who call myself thief." The verbal motor hallucination is localized in the throat; this localization is frequently observed in those suffering from hallucinations of movements of articulate language. The verbal motor hallucinations like all other normal or pathological sensations, are localized in the peripheral organs, where the impression is produced in the normal state. In a way, this localization should take place in the region whence part the kinesthetic impressions produced during the period of articulated voice (organ of phonation). The tongue generally seems to the subject to be the seat of movements of articulations (this localization explains itself); often it is the throat, the lips (muscular and other sensations coming from the larynx, mouth); while the head, epigastrium, chest, stomach, diaphragm, abdomen and back are often also the seats designated. These different localizations, seemingly singular at first sight, as seats of verbal motor hallucinations, are explained by the fact that the tactile and muscular sensations of the lips and tongue are not the only ones produced during the articulation of words. One must take into account, besides, the various kinesthetic sensations coming from the larynx, the respiratory muscles and, finally, the muscles of mastication. According to Paul Raugé, the two muscular phenomena which precede and prepare the intra-buccal articulations (voluntary expiration and phonatory movements of the larynx) are indispensable to the formation of speech and constitute an integral and necessary part of the ensemble of the act. With these points in view, it is easy to understand that erethism of the cortical centre of articulated speech should, in the case in question, be echoed in the sensorio-motor cortical centres,—respiratory, laryngeal and masticatory, with which the centre of verbal articulation works synergetically; this explains the frequent adjunction, to the kinesthetic hallucinations, of intra-buccal hallucinations, those associated with the muscles of the larynx, and the respiratory muscles (localization of voices in the throat, chest, epigastrium, diaphragm, etc.)

In our first case, the verbal motor hallucination was localized in the teeth. The hallucination was accompanied, indeed, by convulsive phenomena of the jaw muscles, causing now mastication, now grinding with the teeth, denoting a condition of excitation of the motor centre of the trigeminal. The patient said that "they spoke" in her teeth, that she "heard" in her teeth. This association is explained by the anatomical relation of both centres, of articulation and mastication, and by their physiological solidarity, (the muscles of mastication enter continually into play in process of articulate speech).

Another fact to be borne in mind is that the excitation of the verbal motor cortical centre produces not only the representations of kinesthetic sensation of speech, that is to say the motor hallucination, but also at times, real movements of articulation, which explains the patient's automatic speaking. "She speaks of herself, she insults everybody."

According to M. Jules Soury, indeed, the excitation of this centre may cause: 1st.—The representation of movements (verbal motor sensations); 2d.—a centrifugal nervous current can cause, according to the degree of the pathological irritation of the centre, either slight articulation perceptible to the patient only, or real movements, though no word be pronounced in reality. Words may be uttered by increased duration and intensity of excitation of the cortical centre.

Another fact to draw the attention is the provocation of auditory hallucinations by the verbal motor hallucinations; "It is the throat that commences and the word is afterwards repeated by the right ear," the patient says.

As for the localization of the cortical lesion in the left hemisphere and the simultaneous excitation of Broca's centre and the neighboring centres (hypoglossal, etc.), it is well to point out that the spasms of the tongue coincided with the verbal hallucinations (the patient insulted her brother "by the throat" while the tongue became stiff at the same time), the existence of Jacksonian epilepsy on the right side, and the predominance of auditory hallucinations on the same side.

The reaction caused by the verbal motor hallucinations must also be borne in mind: the hallucinations caused mental depression, and ideas of auto-accusation: "She insulted everybody, she said wicked things, she called herself thief"; finally she had suicidal tendencies. In the first cases reported, mention was made of the important role which verbal hallucinations may play in the genesis of delirium in general paralytics. (*Gazette Hebdomadaire de Médecine et de Chirurgie*, June 19, 1898.)

**BLOOD PRESSURE IN EPILEPSY.**—Dr. John Marro, Jr., made a preliminary communication on the subject at the March session of the Academy of Medicine of Turin. A thousand tracings were taken on fifteen men afflicted with epilepsy. The conclusions are that while there is generally a high blood pressure, in the normal state of the epileptic, of from 140 to 200mm., there is a considerable instability, the pressure varying from hour to hour. This is particularly the case in patients having frequent attacks. The pressure also differs in both arms, even when the patient is allowed to lie down for 15 minutes before the experiment is made. In five cases the average was greater in the left arm and in four cases in the right. While in some cases the pressure was equal in both arms, there was a difference of about 25 mm. Sphygmomanometric tracings taken from half an hour to ten minutes before the onset of a convulsive attack show that there is no appreciable change of blood pressure, even just before the attack sets in. At the end of the convulsive attack, however, the blood pressure is always increased, and stays so for from 5 to 15 minutes after the end of the attack. The degree of increased blood pressure is not in proportion to the severity of the attack. The author witnessed a highly marked increase of blood pressure after a simple attack of vertigo, without accompanying convulsions. This would seem to indicate that the blood pressure is not dependent on the motor disturbances in epilepsy. The pressure sometimes becomes lowered when the patient is exhausted from successive convulsive attacks. The post-epileptic mental confusion, even when lasting, does not seem to influence the blood pressure.

**INTERNA AL FENOMENO DELLA STRIATURA UNGUEALE TRASVERSA ED ALL' ATTIVITA DI RIGENERAZIONE DEL TESSUTO CORNEO NEGLI ALLIENATI. DR. MARCO TREVES.**—

The finger nails are the seats of structural changes in the neurasthenic and insane, the changes varying with the morbid form of the ailment. The changes lie in the formation of ridges and furrows running in parallel directions to one another and transversely across the finger nails. In order to facilitate perfect observation of the phenomenon, a hair, dipped in a concentrated solution of nitrate of silver, is passed across the finger nail close to its root; a black line is thus formed which lasts some months.

As the nail grows, the black line gradually advances towards the end of the finger. If any neurotic or psychic affliction manifests itself, the above mentioned structural changes take place in the finger nails and can be observed between the black line and the root of the nail. These experiments were made on eight hundred persons, including normal, neuropathic and insane. The major conclusions drawn from the study are that the nail growth varies not only with the age, temperature, physical condition, etc., but also with the individual nail, according to time. A few days' illness is sufficient to produce ridges on the finger nails. The thumb seems to be the seat of predilection for such changes, especially in the insane. In paralytics with apoplectiform and epileptiform spells, retarded growth of the nails may occur when the attacks are of a given duration. Besides, every attack may leave a trace of itself, expressed by transverse striae, more or less numerous, according to its duration and the frequency of the occurrence of the attack. The phenomenon was observed in the alcoholic with delirium and epileptics in whom the attacks extended over a period of a few days in succession. While the phenomenon of the nail striae is frequent as the result of the disease above alluded to, it is an almost constant rule in the case of periodic psychoses: here every period is distinctly recorded by either a ridge or a depression, so that the appearance of such a nail gives a fairly good idea of both the number of the attacks and the approximate length of the intervals between them. In some cases, especially those of a cyclic form of frequent periodic occurrence, the nail assumes a characteristic aspect of surface resembling that of a sea shell. These changes must be due to successive changes of histological activity. This opinion is strengthened by the fact that in normal persons no such morbid changes take place in the finger nails through the period required for a complete renovation of the finger nail.

The transverse striae of the finger nails, therefore, merit special attention, particularly in legal medicine, where it is of import to establish the existing psychic state of the person. (*International Congress of Psychiatry, Paris, 1900.*)

**CAN THE UNIMPAIRED REMAINDER OF THE AUDITORY CENTRE IN THE DEAF-MUTES BE SUFFICIENTLY DEVELOPED TO ENABLE THE SUBJECT TO SPEAK BETTER?**

**DR. SCHWENDT.**—Numerous researches by others as well as those by the author himself, in collaboration with Dr. Wagner, show that, 1st. the physical hearing of the deaf mutes cannot, as a rule, be ameliorated by means of acoustic exercises; 2d, a large number of the deaf-mutes (22 out of 60, or about 36.6 per cent. found in Richen; the percentage is the same as Bezold's) are capable of understanding the elements of a word pronounced in a loud voice at a more or less great distance from the ear, without bringing into play the remainder of the auditory centre. Such subjects are designated as half-deaf; 3d, by utilizing the pre-existing auditory remainder in the intelligent half-deaf the latter may succeed, in a certain measure, in better understanding spoken words; the subjects learn to listen, then, by means of intellectual reasoning, to *complete* the word by *combining* the parts understood; well people understand by the same means words spoken either in too low a tone of voice or at too great a distance to be intelligible; 4th, the progress made by the deaf mutes is not sufficiently great to warrant their dispensing with the reading on the interlocutor's lips. The tutor should test the

half-deaf by speaking into their ears, thus determining whether their attention, centred on listening, will lead them to enounce more euphoniously than do those who are totally deaf. The majority of instructors insist on the superior pronunciation of the half-deaf tutored by Urbantschitsch's acoustic exercises or by Bezold's complementary education; opinions differ as to which of the two learn to pronounce better, the half-deaf or the totally deaf. Much depends on the subjects' perseverance, and the method really has no marked importance.

All the German tutors are unanimous, however, in the praise of M. Watter's method (Frankfort-on-the-Main); his sonorous voice has much to do with this success.

The deaf-mutes in Vienna are instructed after the method of Urbantschitsch, and those at Munich by Bezold's complementary method. It is my impression that the pupils of Richen spoke as well as any of those mentioned, although they were not trained by any exercises. In Munich, Inspector Koller demonstrated his method by making the deaf-mutes recite poetry and prose. The results were not convincing; besides, in order to judge of any progress, it is necessary first to know how the subjects pronounced before they were subjected to the new training. One should compare these various conditions. This would be a difficult task. The Abbé Rousselot, of the Collège de France, overcomes this difficulty by using experimental phonetic tracings which show to what degree the pronunciation approaches the normal.

Dr. Bezold wrote to me three weeks ago stating that his half-deaf have made much progress, and that even the most critical ear could only with difficulty distinguish their pronunciations from that of the normal. There is no reason to believe that he speaks with partiality, as he acknowledged last year that much remained to be desired in the progress of his pupils. (*International Congress 1900, Annals de Méd. et Chirurgie Infantiles*, January 15, 1901.)

**CEREBRAL ABSCESS—TREPHINING.—DEATH.**—M. Balvay presented the brain of a patient who died of a cerebral abscess. The patient was 50 years old; there was nothing of interest from the standpoint of either the personal or hereditary history. Four years ago he had three successive attacks of left suppurative tonsilitis; the abscess opened spontaneously. At that time the patient suffered from ringing in the ears, which he tried to relieve, now and then, by scratching the walls of the auditory canals with anything handy, such as a pin or a match. Slight deafness took place. Six months later there was suppuration of the left ear. He consulted a physician who syringed the ears with borated water and inflated boracic acid powder. The trouble in the right ear disappeared rapidly, and a few days following this improvement the suppuration in the left ear stopped. This was followed by marked pain on the left side of the head, cranium, face and even left shoulder, but there were neither sensory nor motor disturbances. Sharp pain around the antrum. Trephining of the mastoid process. Nothing of note was found. The pain and insomnia disappeared, and the general condition was good. On October 12, the temperature rose to 40 degrees Centigrade, and the patient became comatous. In the course of three days all these alarming symptoms ceased, and the patient left the hospital. He came back eight days later complaining of lancinating pains in the left side of the head. His condition grew steadily worse, but there was no fever, vomiting, sensory or

motor disturbances, nor were there ocular disturbances. Pain in the left mastoid process.

Trephining was done on the same day, October 20, 1899, over the region of the third frontal convolution. There was found: (a) Pus under the temporal muscle; (b) perforation of the bone in the same region; (c) pus between the dura mater and the bone; (d) an extensive abscess under the dura mater. On cutting through it a glassful of pus came out. Drainage was practiced but no immediate relief followed. The patient lay unconscious two days. After regaining consciousness his condition improved gradually, so much so that he was considered cured after a few days. During the apparent cure he suffered from: (a) motor aphasia; he could articulate but a few words; (b) verbal blindness; but it is difficult to say whether the motor aphasia was not responsible for the inability to name things; (c) verbal deafness; this was also difficult to analyze as such; (d) agraphia; only once or twice could he copy part of his name; (e) paralysis of the left motor oculi (ptosis, exophthalmia, dilatation of the pupil, etc.) and paralysis of the pathetic or fourth nerve.

On the 20th there was a renewed attack of coma, without any other sign pointing towards the presence of the cerebral abscess. Contractions of the muscles on the right side. The skull was again trephined in the same place as on the previous occasion, and pus was found there. Death took place on the evening of that day.

Autopsy.—Lesions were found in the area of the anterior part of both temporal convolutions. No lesion whatever in Broca's convolution. Some fibrinous streaks along the main trunk of the motor oculi and the pathetic nerves, which explains the paralysis of these nerves during life. Pus around the cerebellum. The pus found its way there along the base of the cranium.

This case is of interest from these points of view: By the absence of disturbances symptomatic of a cerebral abscess, as there was neither fever, vomiting, sensory nor motor disturbances, excepting in the very beginning, and this lasting only a few days. By the absence of lesions in the area of the third frontal convolution, regardless of the aphasia that was manifested during the disease. (*Gazette des Hopitaux de Toulouse*, Jan. 5, 1901.)

#### ON SPONTANEOUS FRACTURES IN GENERAL PARALYSIS.

The possibility of the occurrence of spontaneous fractures, that is to say, fractures produced by slight causes, out of proportion with the accident, is admitted as an accepted fact, constituting part of the clinical tableau of affections of the nervous system (locomotor ataxia, arrest of development of the nerve centres, progressive muscular atrophy, disseminated sclerosis, paraplegia, syringomyelia subsequent upon hemiplegia, etc.); it would then be rather astonishing were such fractures of rare occurrence in general paralysis which manifests itself in so many varied and deep disturbances of the organism. In 1885 the attention of the profession was called to the existence of the fact; English and German writers brought to light this subject, but the descriptions were lacking in fulness. Biate was the only one who gave a full account.

Having had occasion to observe some spontaneous fractures in general paralytics, I collected the scattered reports of similar cases published in various countries. With these documents in hand, all doubt as to this question is easily discarded. The number of such examples would increase considerably were one to examine all the general paralytics



by means of the Roentgen rays. My observations are based on the cases examined in the asylum Castel d'Andorte and those in the clinic of the faculty of Bordeaux.

One case, a man forty-five years old, contracted syphilis when twenty-nine years old; six or seven years prior to his admission he showed symptoms of general paralysis. Eight months prior to admission to the asylum a slight traumatism caused him a fracture of the left humerus, near the surgical neck. This fracture healed radically within the course of three weeks, leaving no trace of the accident. It is of interest to note, besides, that the patient also presented dystrophia and spontaneous falling off of the finger nails.\*

Another case was serving his military term while suffering from general paralysis. While taking part in the military exercises he broke his left femur at the upper third; he made a good recovery. A radiographic photograph shows the callus substance to be regular and perfect in distribution. The patient was a hereditary syphilitic.

A third case, thirty-six years old, contracted syphilis ten years previous to the onset of the disease and was admitted to the asylum in 1896. During an attack of nocturnal delirium he knocked with his fist on the wall and sustained a luxation of the second phalanx of the little finger. On another occasion, during an attack of vertigo, he fell on his face and broke the nasal bones. Finally, on a third occasion, while playing with a patient, he was kneeling down and then suddenly lifted himself and started to run, when a fracture took place of both fibulae.

Finally, a fourth case, an officer, fifty-three years old, general paralytic. Two years before admission he sustained a fracture of a rib during a spell of coughing. The healing was perfect. Two years after this accident the presence of general paralysis was diagnosed, and the malady is now most manifest.

These spontaneous fractures in general paralysis are far more frequent than is generally known. One must not inculcate here the attendants' brutality towards the patients; in the case of the officer cited above, he held his post in his ranks when the accident occurred.

It is well known that tabes is one of the nervous affections most liable to be accompanied by fractures of the bones. But in the case above—meningo-encephalitis was not accompanied by any touch of locomotor ataxia.

One can, therefore, conclude that spontaneous fractures of the bones may be the sole and only precursors of general paralysis, just as such a fracture appears as a first symptom of tabes. I am not aware that this idea has ever been brought to light before. (*XIII International Congress of Medicine, Section of Psychiatry. Dr. Lalanne.*)

**THE GASTRIC CHEMISTRY IN MELANCHOLIA, MANIA AND HYSTERIA.—DR. PIO GALANTE.** From numerous experiments the author draws these conclusions, which he exposes in tabulated form: In mania, hydrochloric hyperpepsia is prevalent; there may also be chlor-organic hyperpepsia, but this is not well marked when present; and finally the gastric juice may be normal in its composition. In mental confusion, the dominating chemical type is hydrochloric hyperpepsia (in four out of five cases); there may be the normal type, or chlor-organic hyperpepsia; in the latter case the character of the type is not well marked. In

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\*This case was reported by Dr. Regis.



hysteria, hydrochloric hyperpepsia was found in two cases out of three. The hysterical vomit deserves special attention. Bouveret noticed in two cases the absence of free hydrochloric acid in the gastric juice of the vomited matter; in one case the matter was rendered from one to two hours after a copious meal. Soupault, in his work on nervous dyspepsia, concludes that hysteria is as variable in its gastric manifestations as it is in its clinical syndroms. In one case, which presented a true gastric crisis with intolerance of food and continuous vomiting, an examination of the gastric juice showed the existence of an absolutely normal juice. In a second case with similar manifestations, four different examinations showed the gastric juice to be normal, or pretty nearly so. In a third case, the patient had been suffering two years from gastric pain and vomiting which no means could control; the examination showed that the dyspeptic type of the juice was present; but the hysteria was here manifested by intense gastralgia with constant vomiting. Bruchon, in his work on the pathogenesis of the round gastric ulcer, reports a case of hysteria with gastric crises accompanied by hematemesis, where the analysis revealed that the gastric juice was normal. (*Annali di Nevrologia*, Fasc. VI. 1900.)

**LES PSYCHOSES POST-OPERATOIRES, DR. REGIS. CONGRESS AT ANGERS, 1898.**—The author divides the mental disturbances that follow an operation into three groups: 1st, the immediate psychic disturbances; 2d, the secondary, which appear about the second or third day after the operation, and 3d, the tardy psychic disturbances which take place some weeks after the operation. The immediate delirium following the anæsthetic sleep without any transition seems to be due directly to the chloroform intoxication. The prompt onset of the delirium and its rapid disappearance, its typical nature of a confused hallucinatory toxic delirium and even the taste of the chloroform of which the patient complains, seem to point plainly to the true origin. A case is cited in support of this opinion. After the recovery, and even during the mental disturbance, the patient had no recollection of her unnatural behavior. The secondary delirium are due either to septicaemia, accidental infection or to an auto-intoxication; this may have existed before the operation and the latter may have acted as an exciting agent. A case is cited where mental confusion followed an operation for vesical stones. Urinary suppression caused a mental confusion that disappeared after the kidneys were relieved. Tardy delirium are due to deficient nutrition of the organism, caused by prolonged suppuration, decubitus, cachexia, fever, etc. They manifest themselves mostly under the form of simple or asthenic mental confusion. A case of ovarosalpingectomy is cited which was followed by mental confusion with melancholia. The condition was relieved noticeably by subcutaneous injections of ovarian juice. A remission of the disease took place under mental stress about a business matter and the patient committed suicide. (*Congrès des Medecins alienistes et neurologistes de France et des pays de langue Francaise. Angers, 1898.*)

**THE REMOTE PROGNOSIS OF PSYCHOSES OF PUBERTY.**  
*Dr. A. Cullere.—Conclusions.*—The attack of insanity in the adolescent is curable, but the interest of the question lies in the future course of the constitutional stigma of which the first attack is a prime manifestation. 120 cases of psychoses of puberty were studied, ranging in years between 15 and 18 (53 boys and 57 girls) and they can be divided into six groups, from the standpoint of evolution.

1st.—Dead during the course of the first attack, 3 cases.

2d.—Precocious dementia, 33 cases. In 18 cases it set in after the first spell; in 9, after the second; in 2 after the third; in 4 cases the attack of insanity degenerated into a secondary systematized insanity with mental enfeeblement.

3d.—Periodic insanity, 20 cases. All periodic forms enter under this heading.

4th.—Remittent forms of variable duration, 25 cases. The remissions are generally benign and of long intervals. This group is the most favorable one as far as concerns the question of remote prognosis.

5th.—Obsessions and impulses, 5 cases. These forms generally last a lifetime.

6th.—Patients lost sight of after the first attack, 30 cases. The forms of their diseases may come under the headings of the preceding groups.

RESUME.—The prognosis of the attack itself is favorable in 79 per cent. of the cases, but the remote prognosis is most unfavorable. Cured from a first attack, the subjects are certain to have remissions of the psychoses, to fall into precocious dementia and to have aggravated attacks of obsessional insanity.

The most favorable fate is reduced to the hope of having shortened attacks of the insanity and lengthened periods of intermission.

**PSYCHOSES OF PUBERTY.** *Dr. Jules Voisin.*—*Conclusions:* 1st. The term "psychoses of puberty" implies the mental affections which develop during the period of puberty, between the ages of 14 and 22. This period is characterized by the sexual, physical and intellectual development of the individual. 2d. At this period any variety of psychosis is apt to manifest itself: hebephrenia as a morbid entity does not exist. The term should be reserved for designating the cases of dementia. The psychoses which develop during the evolution of puberty are less dangerous than those taking place at the end of that period. The former may be called psychoses of puberty, and the latter of adolescence. 3d. Hereditary predisposition is the predominating cause of these disturbances; the association of the incomplete intellectual development of the subject in combination with heredity give the disease the stamp of hebephrenia. 4th. The pure psychoses or, rather, those approaching nearest to the above, are of atypical, mixed forms, and the patients recover in half of the cases. 5th. Melancholia generally appears in a form of grave stupor, accompanied by impulsive acts, obsessions and imperative hallucinations directed against the patient's life and surroundings. There is at the same time, mysticism and onanism. 6th. Mania is seldom of a benign variety and often presents impulsive elements. 7th. Precocious dementia (hebephrenia), described by Kahlbaum and Hecker, appears in two forms: grave and mild. In the former there may be stupor, dementia, catatonia, and mental confusion, all making the diagnosis difficult. The mild form or simple precocious dementia (stigma of mental degeneracy, *Morel*) should be distinguished from progressive general paralysis and from spasmodic epileptic dementia. 8th. Mental confusion presents a dream delirium or oniric delirium which is quite analogous to alcoholic delirium. Oniric delirium is characteristic of psychoses of auto-intoxication; in such cases it is almost certain that disturbances of nutrition during adolescence are the causes of delirium. Half of the cases recover; the cure is generally pre-

ceded by nervous spells, profuse sweating, diarrhoea, salivation, menstrual flow, abscesses, furuncles, etc. 9th. Juvenile progressive general paralysis differs from the same disease in the adult by the absence of ideas of grandeur and ambitious deliriums as well as by a slower course of development. Many authors point to hereditary syphilis as a cause in the juvenile case. 10th. The most frequent forms are the psychoses of degeneracy and the neuro-psychoses; they reappear in the adult age. 11. Medico-legally the psychoses of puberty come under the ordinary rules applicable to the insane, but personal responsibility, according to the French law, dates from the age of 21. In criminal cases only does the responsibility begin at the age of 16. (*International Congress of Psychiatry*, Paris, 1900).

#### PSYCHOSES OF PUBERTY. PROF. ZIEHEN. (GERMANY.)

From the study of four hundred cases of insanity, the first symptoms of which were exhibited between the ages of thirteen and twenty-one, the following conclusions are drawn: 1st. Mental morbidness reaches one of the maxima at puberty. Hereditary taint increases morbidity at the period of puberty. Besides heredity, the agents that play an important part in the etiology of psychoses of puberty are: anæmia, especially physical and intellectual overwork, acute infectious diseases, and sexual excesses. 2d. Almost every known psychosis is apt to be met with among the psychoses of puberty. The special stamp of puberty consists in the fact that some forms of psychoses are more prevalent during that period; also that often, though not always, there are special modifications of symptoms, and of the course of the disease. It is, therefore, wrong to speak of a special psychosis of puberty. The only psychosis characteristic of puberty exclusively is hebephrenic dementia, or Kahlbaum's hebephrenia; but there is a relatively small proportion of these cases as compared with all others. 3d. The most prevalent psychoses of puberty, besides hebephrenia, are: circular insanity, mania, melancholia, acute hallucinatory paranoia (amentia of some authors) and the insanities of hysterical and epileptic nature. 4th. The most important psychic modifications caused by puberty are: "affective dissociation," "hebephrenic paramimia," a certain incoherence, not only of the delusional ideas, but also of the normal ones, and, on the other hand, a tendency to verbal stereotype, mimics, etc., and finally a tendency towards a circular course of the disease, or else to progressive dementia. 5th. The prognosis in these cases is generally worse than in psychoses after puberty. 6th. The treatment does not differ from that in other forms, with the exception that complete bed treatment is not advisable in some cases. A regular physical and mental occupation is of great importance in most cases. Narcotics should be excluded as much as possible. Much care should be taken in choosing the adult patients who are to mix with these cases. (*Congress of Psychiatry*, Paris, 1900.)

#### THE PSYCHOSES OF PUBERTY. DR. MARRO, ITALY.

Conclusions arrived at: 1st. Puberty exercises a marked influence on the psychic life, either by stimulating or augmenting the degree of pre-existing mental disturbances, or by opening a new avenue for the invasion of psychoses. 2d. Among the psychoses which set in in the boy or girl during the period of puberty, hebephrenia (Heiker) may be considered as a specific form. 3d. The morbid manifestations of this particular psychosis

and the necroscopic changes show that the cerebral cortex and the meninges are the seats of a morbid anatomical process. The invasion symptoms would point towards a probable source of auto-intoxication through the gastric channel. 4th. Precocious sexual exercise may give birth to still other morbid manifestations, which in their turn may impart to the individual psychic disturbances of a permanent nature; these may be effaced, however, under favorable circumstances. 5th. The prophylaxis of these mental disturbances calls for constant vigilance. (*International Congress, Paris, 1900.*)

#### **CORTICAL HYPERESTHESIA IN ACUTE ALCOHOLISM. DRS.**

**P. COLLOLIAN AND A. RODIET.**—Experiments were made with the object of causing hallucinations in the alcoholic after the hallucinations caused by the alcohol directly had substantially subsided. Thus, by practicing gentle friction over the eyeball, touching the ear, tongue or skin of an alcoholic some time after the acute signs of alcoholism had disappeared and he had virtually become free from hallucination, it was found that the above mentioned means caused acute and vivid hallucinations to reappear. These lasted from one to two minutes. In all cases examined this cerebral hyperesthesia existed, though varying in degree. In some the sight reacted most, in others it was the hearing, smell, etc. In one case, a hereditary degenerate, all of the senses reacted vividly, the whole brain, or rather, all the sensory centres being in a condition of hyperesthesia. Although the hallucinations thus produced have a peripheral cause, they are yet true hallucinations, for there is no hallucination without an excitation of the sensory centres; the peripheral excitation is sent up to the respective centres, is exaggerated by the hyperesthetic cells, modified, and transformed into an image which is projected outside under the form of an hallucination; even in the cases where the hallucinations are caused by simple suggestion, the excitement is an outward one.

These phenomena are found not only in recent alcoholics, but also in other cases. All alienists are familiar with the fact that hallucinations can be caused in the insane by external excitation. Thus, in one degenerate, every touch on the arm corresponded to a syllable; but such cases are habitually afflicted with hallucinations. It would be wrong to say that the external excitation above is responsible for the appearance of the hallucination, for a brain perfectly free from hyperesthesia cannot thus react. The insane in whom the phenomenon is observed are either degenerates or suffering from chronic delirium of persecution. In both cases there is cortical hyperesthesia, a cerebral excitability that responds to every slight shock by a hallucinatory image.

The alcoholics examined showed, besides the alcohol, a deeper cause—hereditary degeneracy which underlies the phenomenon in all the insane. Alcohol alone does not suffice to produce the cellular hyperesthesia. The repeated use of alcohol predisposes the subject more and more. This was observed on the patients who had become chronic alcoholics and had been admitted to the asylum many times. In all cases examined, where the stated results were obtained, there existed a stamp of hereditary degeneracy, due either to alcoholism or insanity in the ancestry, and the alcohol was only an exciting agent on morbidly prepared soil. In such cases the slight cause:—a breath, suffices to excite the nerve cell in the gray matter and to produce a hallucination. Although the hallucinatory disturbances are proportionate to the degree of hereditary degeneracy,

much depends on the individual susceptibility. In conjunction with the existence of degeneracy, the nature of the alcoholic beverage has much to do with the manifestations in question. Thus, absinthe, more than other drinks, causes the cellular hyperesthesia. This beverage causes convulsions to take place, and it is a clinical fact that such drinks cause cellular hyperesthesia more than others; next in order come vermouth, amer picon, etc.

The question as to whether the absinthe drinkers do eventually become epileptics, not by reason of the drinking of the beverage, but by reason of its causing the special cellular hyperesthesia, is a subject for future study. (*Archives de Neurologie*, June, 1900.)

## BOOK REVIEWS.

**Trattato di Psichiatria ad Uso dei Medici e Degli Studenti del Prof. Bianchi Leonardo, Direttore Della Clinica Psichiatrica e Neuropatologica della R. Università e del Manicomio Provinciale di Napoli. Con Numerose Figure Intercalate nel Testo.** *V. Pasquale, Napoli.*

Dr. Bianchi does not need any introduction to the scientific public. His researches in psychiatry, cerebral anatomy, physiology and pathology are well known. In this volume the learned author treats of the fundamental laws of the evolution of the mind, and its relation to the evolution of the nervous system, structurally, anatomically and physiologically. Numerous illustrations are given to elucidate both the comparative cerebral structure and function and the relation of topographic cerebral anatomy to psychic manifestations. A deep scientist and excellent linguist, Prof. Bianchi gives the reader the benefit of a grouping and handling of the results furnished by workers all the world over, in various branches of research bearing on the subject considered. The volume consists of 170 pages and constitutes the first part of a treatise on psychiatry. A second and third part, which will consist in all of 600 pages, will treat of the semiology of mental clinic and the descriptive part of the varieties of mental diseases. The first volume is read with interest and profit. We congratulate Prof. Bianchi on this excellent volume, which cannot fail to find its way to the library of every worker in psychiatry.

**Psychologie de L'idiot et de L'imbecile.** *Dr. Paul Sollier, 2me. edition. Felix Acan Paris, 1901.* The book is devoted to the study of perception, sensations, attention, instincts, sentiments, will-power, personality and responsibility. The facts brought out are as follows: The idiot is an incompletely developed being, while the imbecile is an abnormally developed subject. The idiot is incapable of action and thought, while the action and thought of the imbecile are abnormal, although he is capable.

The idiot is capable of affection while the imbecile is egotistic. The idiot is responsive to suasion while the imbecile is rather governed by fear. The idiot is timid, capable of work, has a feeble will-power; the imbecile is arrogant, lazy, and has an unstable will. The idiots, as social units, are less harmful than the imbeciles. The idiot is a non-social unit, while the imbecile is an anti-social one.—*Ossip-Lourie.*



**La Tristesse et la Joi.** *Dr. Georges Dumas. Felix Alcan, Paris 1900.*—The author considers the subject of joy and sadness from the standpoint of the various physiological, chemical, physical and mechanical phenomena of the individual during the stages in question. He concludes that joy and sadness are largely general sensations and must not be classed among special emotions. A distinction is drawn between active and passive sadness; the similar two forms of joy are less distinct. Both joy and sadness are symbols—vivid or confused—of individual tendencies.—*Ossip-Lourie.*

**Diagnostic des Maladies de L'encephale, par le Docteur Grasset, Professeur de Clinique Medicale a l'Universite de Montpellier.** 1 vol. in—16 de 96 pages, avec 6 figures, cartonné, 1 fr. 50: *J. B. Bailliere et fils, Paris.* The value of this little volume lies in the fact that the latest discoveries in cerebral function are included and the diagnosis of the cerebral affections is made explicit by a clear presentation of clinical data. The illustrations aid in following out the clinical arguments.

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## MISCELLANY.

**A State Epileptic Colony** is projected in Illinois, at North-cliff, near Elsau, Jersey county. Governor Tanner is reported to have stated on December 5th, that there were more than 5,000 epileptic inmates of the various eleemosynary institutions of the State, and they are to be transferred to the new institution as soon as it can be completed. (*New York Med. Journal, Jan. 19, 1901.*)

**Congress of Alienists and Neurologists of France and French-Speaking Countries.**—The annual congress of the Alienists of France and of French-speaking countries will be held during the week ending August 7, 1901, at Limoges, under the presidency of M. Gilbert Ballet, Professor at the Medical Faculty and physician at Saint Antoine Hospital, Paris.

The following questions will be reported on:

**NEUROLOGY.**—Physiology and pathology of the muscle-reflex and contraction. (*Reporter, Prof. Crocq.*)

**MENTAL PATHOLOGY.**—Acute delirium from the clinical, anatomo-pathological and bacteriological points of view. (*Reporter, Dr. Carrier.*)

**ADMINISTRATION.**—The Asylum Attendants. (*Reporter, Dr. Taquet.*)

**The Fifth International Congress of Criminal Anthropology.**—The State Department at Washington has received a note from the minister of the Netherlands stating that the Fifth International Congress of Criminal Anthropology will be held in Amsterdam from the 9th to the 14th of September. The principal questions to be discussed are: First, the anatomical and physiological character of criminals, descriptive studies; second, criminal



psychology and psychopathology, criminals and lunatics, theoretical considerations and practical measures; third, criminal anthropology in its legal and administrative application, principles to be followed, preventive measures, protective measures, penalties; fourth, criminal sociology, economic causes of crime, criminality and socialism; fifth, criminal anthropology and ethnology compared. Special questions, such as alcoholism, sexuality, juvenile criminality, senile criminality, hypnotism, criminal psychology in literature, etc., will also be considered.—(*N. Y. Med. Journal.*)

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## ERRATA IN VOL. I., NO. 1.

- P. 27, line 21: "Simidae" should read "Simiadae."
- P. 28, line 22: "reaction" should read "traction."
- P. 44. Sixth line from bottom of page: word "the" should be stricken out;  
Third line from bottom of page: word "the" should read "its."
- P. 45. Last line: word "unreasoned" should read "unreasoning."
- P. 48, line 30: "halucinations" should read "hallucinations."

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No. 3.

## ON THE PROPHYLAXIS AND TREATMENT OF THE RECIDIVIST CRIMINAL.

BY DR. JUL. MOREL,

*Chief Physician State Insane Asylum, Mons Belgium. (\*)*

Etudier la nature des causes profondes et individuelles des maladies et des crimes pour le guerir, les ameliorer et les éloigner, se servir de moyens conformes au but c'est a dire des moyens correspondants à la nature des causes, voila le principe général et prédominant vers lequel nous sommes arrivés par une étude consciencieuse des faits dans le domaine de la psychiatrie, comme dans celui de la criminalité (Dimitri Drill.—*Les fondements et le but de la responsabilité pénale.*)

At the third Congress of Criminal Anthropology, held in 1893, three reports were presented "*On the measures applicable to the corrigible subjects and the proper authorities to utilize those measures.*" Prof. Thiry recognized the difficulty in the matter of what constitutes incorrigibility. The physical configuration of the subject is not an absolute guide, while the judge has neither the time nor the necessary knowledge to delve into the matter by psychological examination. According to Prof. Thiry, the incorrigible are those who after a first condemnation again commit a crime, prompted by a permanent moral influence, which acts on the will.

Prof. van Hamel's definition of the criminals is: "*those who are a permanent danger to the society in which they freely live.*" The honorable professor leaves it to specialists to study the causes and nature of incorrigibility. Nevertheless, he looks on recidivism as an index of incorrigibility, whether the offense has been repeated only once or oftener, unless the hereditary history

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\* Read before the Vth International Congress of Criminal Anthropology, Amsterdam, 1901.

and the ways of living furnish proof to the effect of professional criminality or a habit difficult to extirpate.

The author finds among recidivists subjects with mental debility, unbalanced equilibrium, alcoholics, vagabonds, degenerates with lack of will power to lead an honest existence by work, preferring to live in asylums, the life of a nomad to family life, illicit marriage to the lawful state, etc., those who attack other's property or commit rape, who disturb the public peace by rebellious acts and who, in a word, feel an almost continuous necessity for criminal behavior. This is a true picture of recidivism in criminality.

According to Prof. Alimena, incorrigibility is based on recidivism, and in order to recognize this one should study:

- 1.—The repetition of the acts:
- 2.—The nature of the offense, in order to find whether it is always similar;
- 3.—The motive for crime;
- 4.—The whole life of the criminal, both at large and in prison.

At the meeting of the "*Union du droit international et du droit penal*," M. von Lilienthal defined the incorrigible as "subjects with reiterated recidivism, whose crimes result:

- 1.—From hereditary or acquired degeneracy;
- 2.—From a mode of life the nature of which is professional criminality.

This definition is not far, in its broadness, from that of the alienist who has studied legal psycho-pathology. I was pleased to hear the opinion of another eminent jurist, M. Mans, who declares, without hesitation, that the delinquents return to their misdeeds regardless of the punishment imposed. As a result of medico-psychological studies, no doubt, he says: "there are cases of recidivism which are due to pathological causes; they cannot come under the consideration of the penal code."

M. Mans thinks that if the accused presents apparent signs of mental derangement, medical counsel should be called on and the accused acquitted. He asks whether epilepsy, moral insanity, either impulsive or motor, or the absence or inversion of the moral sense are admitted to exist without intellectual disturbance. He says that the bench of justice generally considers drunkenness as a defect rather than an excuse; some asylums hold quite a number of cases of insanity, sentenced for acts committed under the influence of their malady, at a time when the latter was not sufficiently apparent to attract the judge's attention.

The psychiatrist who reads these lines cannot help being astonished at the exposition of facts and is forced to admire the jurist's insight into the question. M. Mans considers the question in its proper light, using the language of a psychiatrist, without having studied legal medicine. He understood so well the great responsibility that falls on the magistrate that he did not hesitate to declare that it is impossible for the bench to appreciate, by means of purely juridic knowledge, the importance of a mental examination of the accused. The public inquest is not sufficient to bring to light the details of the psychic state of the accused; and then, it must be admitted, the request for medical examination is often received with distrust. Those who have frequented the courts know that the magistrate's instructions have more reference to the crime committed than to the individual.

Fortunately, M. Mans was not discouraged; convinced of the firm ground of his opinions, he came to present them to the International Congress in Geneva, in a splendid work entitled, "*Les mesures propres à faire connaître la personnalité physiologique, psychologique et morale du prévenu, qui permettraient aux magistrats et aux avocats d'apprécier l'opportunité d'une expertise médicale.*" (1).

This work is a complement to the one on incorrigibility.

I regret, with M. Mans, that the term "incorrigible" should be applied to all delinquents and habitual recidivists. An incorrigible is a being fundamentally and morally bad, deserving little pity; whereas, the majority of those who enter under this heading are nothing but unfortunates, who belong rather to a class with enfeebled brains incompletely developed or else impaired after development. I must add that the anthropological or anatomophysio-pathological element cannot be of predominating or exclusive value in this question; that very often there is, besides this element, another one, the social element. These two capital elements are the main aids in the diagnosis and prognosis of the accused, especially of the recidivists, and determine the remedy to be used in opposing these criminals or these patients.

To those who study recidivism and the so-called incorrigibility, it is gratifying to note how the ideas about the criminal are progressively converging and how efficacious the study of the criminal is becoming since the organization of the congresses of anthropology. My learned colleague, Dr. Legrain, who has

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1) "The proper means for knowing the physiological, psychical and moral personality of the accused; means which would encourage the admission of expert evidence by the Bench and Advocate."

sacrificed a number of years to the study of degeneracy, brought to light at the Congress of Criminal Anthropology at Brussels the difference that should be established between the common criminal, socially responsible and socially punishable, and the pathological criminal, the so-called incorrigible. These criminals by reason of their conduct, heredity and acquired degeneracy belong to the group of moral insane. MM. van Hamel, von Lilienthal, Alimena, Cuglia, and especially M. Mans, when handling such delinquents, accept the results of the study of degeneracy exposed by the leading psychiatrists during the last half century.

M. Legrain has arrived at the following conclusions regarding the motives of criminality in subjects he examined.

1.—Some act by reason of moral contagion. The feeble-minded are highly susceptible to suggestion and have little appreciation of the import of their deeds.

2.—Others are unconscious of their acts; they are imbeciles acting under suggestion, as they would in any other way. Here the crime is nothing but an accident.

3.—Others become criminals in order to satisfy a tendency, a desire for crime. Here one finds an instinctive exuberance, often little influenced by education. There is an unbalanced equilibrium regardless of the possibility of mental development.

4.—Others act under the influence of morbid impulses, conscious, irresistible.

5.—Finally, there are the moral insane, who are insubordinate, wilful, vicious thieves, who seem to practice ill deeds for the pleasure of it and who in the majority of cases do not reform, regardless of the most ingenious measures of education. They remain incapable of assimilating the rules of morality.

The majority of recidivists enter under these headings. The following is my definition of the incorrigible: "An individual born in special circumstances, or who has become victim, after birth, to some morbid changes, or who has not received the necessary adjuvants during his early childhood, and who, consequently, has not reached the psychic development necessary to make of him a normal man." In conformity with this definition I have declared that the incorrigible belonged to the domain of pathology. I have pointed out the fact that if the child's history were traced from its intra-uterine to its first few years' existence, it would be found that certain of its moral alterations should be attributed to either an insufficiency or to an arrest of development of the nervous system or to a cerebral affection, which was followed by

either a degenerative or atrophic cerebral condition; this is often accompanied by simultaneous changes in the various cranial parts in the face and elsewhere. The prisons house masses of beings who are their families' as well as the prison authorities' despair, and a psychological examination of these subjects brings to light the fact that they never are in a position to profit by favorable circumstances, as do others in the honorable ranks of society.

I have found among them:

1.—Foundlings—natural children whose education depended entirely on teachers too absorbed with their personal interests.

2.—Children who had become orphans during the period of psychic development or whose parents were so situated that no adequate instruction could be given to the offspring.

3.—Children of parents who were either born or had become degenerates, and who were consequently incapable on account of their intellectual and moral incapacity.

These questions, as well as those brought out by Dr. Legrain, impose themselves in the study of means by which to counteract the growth of this genus of unfortunates, delinquents the best part of their lives, ending too often by becoming mendicants or vagabonds.

#### WHAT IS THE DUTY OF SOCIETY TOWARDS THE RECIDIVIST DELINQUENT?

According to M.M. Dimitri Drill and Thiry, the unfortunates should be taught how to adapt themselves to social life; they should be taken away from the deplorable conditions in which they live and given a moral education. But before generalizing, it is well to follow some anatomical and psychological classification. M. Drill adds that the administration of justice should not be carried out in these cases in the routine manner, but that preventive measures should be instituted. One should not rely too much on the efficacy of severe punishment, but should rather apply measures calculated to combat crime. His discourse deserved the applause he received, as his words were those psychiatrists would have used.

No allusion was made to the medico-psychological side, either by MM. Thiry, van Hamel or Mans. M. van Hamel objected to the fact that Dr. Legrain's work was limited exclusively to the treatment of children, while the congressional reporters were pre-occupied with adult delinquents. Dr. Legrain did not speak of



the adult delinquent purposely, for, when speaking of the conditions which bring about incorrigibility, he indicated the great role played by hereditary or acquired degeneracy, and this degeneracy is more closely connected with children than it is with adults. Psychiatrists have proof, however, that degeneracy extends its influence beyond the age of childhood, reaching the adult after he has gone through the period of childhood and adolescence in a normal way; at the period of genescic awakening such subjects may manifest the consequences of their hereditary psychic stigmata. The question of delinquency in children remains then an open one. In 1896 I realized its importance to such a degree that I urged the organization of a psycho-medical service in correctional houses (reform schools).\* I demonstrated in that article the insufficiency of the reform schools from the standpoint of instruction and education. The majority of the inmates of such institutions are defective intellectually and hereditary degenerates; two or three years' stay at those schools is insufficient to alter those subjects, who are then discharged and sent back to live and share the freedom of society.

This opinion was a natural result in the face of cold facts furnished by statistics, which claim that both criminality and insanity are on the increase at mature age. I could here state that the number of causes at adult age are also increased, but I must not digress from my subject.

At the two last congresses of criminal anthropology two distinguished jurists gave opinions in reference to the solution of an important sociological problem, saying that criminal recidivists should be excluded from society during an indefinite term of time, according to the nature and repetition of the crime, or else according to the psychic disturbance or degeneracy which necessitates their sequestration for the purpose of public security. Psychiatrists upheld the validity of this opinion. The question of the delinquent recidivist will in the future fall entirely into the hands of the alienist. This is my firm opinion.

A question compendium should be edited by psychiatrists and jurists for the use of the Bench. The examination should apply not only to the delinquent, but to his parents, as well as his grandparents and collateral relations, with the view of finding a clue to the degeneracy of the accused. This history should be collected in every detail, wherever possible.

The medical report of every delinquent recidivist should make

part of his history; such reports may be of great value at critical moments, or else simply as a study. This question was considered at the Congress of Rome, 1895.\*

Jurists have progressed so far as to admit irresponsibility on the ground of impaired mentality, but none has yet suggested any measures to be taken for handling the degenerate. As things stand to-day the degenerate's fate depends greatly on his age: If he is a minor, the judge sends him to a reform school; if of age, the culprit goes to prison, unless good fortune has made an alienist of the judge on that occasion; the subject then becomes an asylum inmate, the asylum receiving all categories of the psychically impaired, the mentally and intellectually debilitated, the imbeciles, idiots, moral insane and degenerates.

In all countries it is nowadays observed that the growth of viciousness and of aberration of the moral sense goes hand in hand with the growth of alcoholism and of other social poisons.

Anatomy, histology, physiology and normal and pathological psychology show that there are certain subjects, both psychically and physically inferior to the accepted level, who are unable to reach a high social standard by reason of their permanent pathological condition. This fact is confirmed by a large number of the young delinquents housed in reformatory schools. Some of those scholars are hopeless so far as instruction is concerned, while others, with even normal development of some of their faculties, are unable to improve, because of the defect of other faculties, which should also be normal in order to aid in bringing about a complete success.

These latter subjects come under the heading of imbeciles and feeble-minded, in whom the faculty for the formation of ideas and appreciation remain in abeyance. Their judgment is vague and narrow, and they are easily influenced by surroundings.

A normal man always scrutinizes his own being; he always leads himself by his own reasoning of right and wrong. This constitutes his intellectual superiority. The intellectually debilitated on the contrary does not trouble himself with the *WHY* and *WHEREFORE* of things; he is not interested in the abstract. He does not undertake any serious work, being quite satisfied to live on the good of the land. He has a good opinion of himself and his acts, and thinks himself and his work as good as any. And yet he has no independence of mind:—a feeling of satisfaction or contrariness, a threat, an intimidation or an advice, suffice

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3) *De la nécessité de créer un établissement spécial pour les individus inaptes à jouir de la liberté.*

to modify his sentiments and his will power, bent on the commission of crime. Social poisons and physiological and moral misery exercise more powerfully on them when they are in a condition of intoxication. This unstableness of self is more marked here than in normal man.

Among these degenerates are some incorrigibles, so-called ; but a glance at the statistical table below will show the true nature of those subjects.\* The table shows an intimate relation between recidivism and almost complete absence of education. This lack of education is so much the more important because the subjects had attended school for a given number of years, thus showing the hereditary taint that exists.

Fifty-seven out of 168 recidivists had an alcoholic father or mother ; forty-seven of these prisoners had near relatives among other prisoners ; sixty-one of the recidivists belonged to insane, hysterical, epileptic or suicidal families ; some of the same number had been inmates of insane asylums, or were abandoned by their parents, or were orphans. The percentage of alcoholic delinquents who are the offspring of alcoholic parents is considerable.

In the matter of prophylaxis against criminality, we should try and check the propagation of alcoholism. This side of the subject has been touched on at various congresses, and I shall not enter here into details about it. It is not out of place, however, to remark that there is a close connection between alcoholic indulgence and the commission of crime. Why are so many crimes committed under alcoholic influence ? Why are so many criminal recidivists of inferior intellect and morality ? Experimental physiology and psychology give us the answer. Alcohol produces a progressive degenerative effect on the cortical nervous cells, as well as on the other nerve elements, which take part in the intellectual and moral functions. Continuous indulgence in alcoholic drinks reduces the general as well as the special vitality of the tissues ; the faculties are consequently also impaired, and abnormal character and acts result therefrom.

This takes place in normal beings. Should the subjects happen to be hereditarily predisposed, the result of the abuse of alcohol is still worse, both for the parents and their offspring. Every one is familiar with this deleterious action of alcohol in the parent on the birth of morbid offspring.\*\*

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\* See Table 1.

\*\* This percentage would be still more marked were not the death-rate of children of alcoholics so high.

While I am on the question of alcoholism, it is well to recall Dr. Pelman's remarkable case of an alcoholic family. A woman, Ada Jurke, was born in 1740, and died at the beginning of the following century. She was an old drunkard, thief and vagabond. She left a family of 834 persons, and track has been kept of 709 of them. Of this number there were 106 natural children, 142 beggars, 64 maintained by charities, 161 given to prostitution, and 76 criminals, of whom seven were murderers!

In the course of seventy-five years this one family cost the State, according to official data, six million, two hundred and fifty thousand francs.

Dr. Grossmann cites a case of the families of five sisters, amounting, in all, to 540 persons, of whom seventy-six per cent. were criminals and twenty per cent. paupers. Only four per cent. were not a public burden. Another criminal had 623 descendants, of whom 200 were criminals, the rest being mostly idiots, drunkards, loafers and prostitutes.

The statistics of the Industrial School for Girls, Michigan, show that in one-seventh of the cases there was insane heredity, one-third were descendants of criminals, and the remainder of the two-thirds were of alcoholic parents.

Psychiatry shows by the analyses of the delinquents that there can be no doubt as to their irresponsibility, although they are not insane. The statistics relating to the proportion of delinquents in various countries are contradictory. In England there were 6.4 per cent; in Italy, according to Rossi, there were 5.2 per cent., whereas Marro put his figure at 32 per cent. for the prison of Turin. At the Moabit prison in Berlin, Krohne counted 10 per cent., and Mendel found 13 per cent. in a house of correction. This divergence of figures is due to the insufficient instruction of the prison physicians, who are almost alien to the science of psychiatry. Dr. Naecke found that of fifty-three women transferred to his asylum, at least twenty or twenty-five per cent. were erroneously committed. He says that these data are not exaggerated. According to Langreuter, in 1884-5, out of 1,200 criminals in the Prussian prisons, at least one-third had been mentally ill before the commission of crime. Mendel goes so far as to state that three-fourths of the cases may be thus considered. Sommer (1888) could find only a very small percentage of subjects who were mentally well before committing a crime!

Dr. Naecke and my colleagues, Marro, Mendel, Langreuter and Sommer have confounded under the term "mentally ill" the true insane and the degenerate. However, I hold, with my col-

leagues, that these cases are "crushing"—as their necessary histories have not been had and the acts of the courts cannot, therefore, be considered intelligent.

Since the documentation, on this subject, presented to the last Congress of Criminal Anthropology, similar examples have been multiplied. Dr. Cramer, of the University of Gottingen, in his work "*Ueber Jugendliche Verbrecher*," 1898, analyses fifteen criminals; of this number two only were free from hereditary stigma.

Dr. Moenkemuller examined 200 inmates of the Reformatory of Herzburge and found that 114 of these suffered from mental debility, epilepsy and psychoses; 75 were normal; 5 only were free from stigmata of physical degeneracy; the hereditary taint was marked and the previous environment bad.\*

In the first appended table it will be seen that the majority of the subjects handled were illiterate and the offspring of alcoholic parents. Although it is true that these delinquents had worked under unfavorable circumstances in obtaining an education, yet it is found that their capacity for learning in itself was defective.

The second table is one of major criminals, whose sentences ranged from five years to perpetual imprisonment. In these cases there are less illiterate subjects, because they have received a complementary education while serving sentences. The number of alcoholic and criminal ancestors is about the same in both tables. This fact is most striking, and I believe with Dr. Naecke that there is among the criminals a hereditary taint of from fifty to sixty per cent. Pauperism is found almost universally; almost all come from the "lower strata" of society, having been subjected to worse physical and moral hygiene, and having suffered more disease than others; from their very birth they differ from others anatomically and physiologically, having alcoholic parents who lead, besides, either vicious or lazy lives, abandoning their offspring, who, in turn, endeavor to emulate their parents' lives. This explains why so many of these prisoners improve, in institutions, both physically and morally. When discharged and returned to the surroundings of defective hygiene, etc., they fall back into the previous degradation and are returned to prison.

In my tables I indicate that the recidivists are sufferers from psychological conditions of a pathological nature, besides the defects above mentioned.

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\*) Allg.-Zeitscher. fur Psychiatrie, 1899.

These facts cannot be doubted any longer. My statistics, as seen in the tables, confirm the scientific statements of many eminent men, such as Drs. Mans, Naecke, Mendel, Langreuter, Sommer, Kramer, Monkemuller and others.

In conclusion I wish to say that :

1. For the benefit of public health, the government should care for the young degenerate and take them away from the evil influence of their parents.

2. When these degenerates attract attention by their acts or conduct, they should be investigated and reported on officially, as well as professionally.

3. As far as possible, they should be placed in medico-pedagogic institutes directed by competent authorities.

4. Parents should have the privilege of placing in medico-pedagogic institutes children whose low intellects require special care; the children should be cared for up to the age of eighteen years.

5. The question of vengeance should give way to that of ameliorating the condition of the offenders. The degenerate cannot be held responsible, but should be cared for by society.



## TABLES.

## No. 1.—Recidivists Who Received Minor Sentences:

Degree of Education .....	NONE.	RUDIMENTARY.	PRIMARY.	TOTALS.
Ages .....	{ 18 31 41 51 18 31 41 51 and and and and and and and 30 40 50 60 30 40 50 60			
Number .....	43	11 7 11 29 9 3 5 27 11 6 6	168	
Given to Alcoholic excesses .....	19	7 6 11 10 6 1 8 12 8 2 4	89	
Both parents alcoholic .....	20	6 2 3 11 2 1 8 8 1 1 1	57	
Near relatives sentenced as criminals .....	13	6 3 1 11 1 0 1 8 2 1 0	47	
Degeneracy, hereditary, acquired or vicious educ'n .....	11	3 4 6 11 2 1 1 11 7 1 3	61	
No decided degeneracy .....	11	5 1 0 10 1 0 1 7 2 2 1	41	

Recidivists of this category, showing their education in relation to alcoholic indulgence :

	Age.	Instruction.		
		None.	Rudim.	Prim.
Alcoholic and parents alcoholic :	18-20	1	2	1
	20-25	3a	1b	3c
	26-30	3	1	1
	31-40	3	1	2
	41-50	2	0	1
	51-60	3	1	1
Totals .....		15	6	9

One of those marked by letters :

- a. Was an asylum inmate.
- b. Ex-inmate of Reformatory.
- c. Ex-inmate of Reformatory.

	Age.	Instruction.		
		None.	Rudim.	Prim.
Brothers, sisters and uncles alcoholic :	31-40	0	2a	0
	41-50	2	0	0
	51-60	2	0	1
	Totals .....	4	2	1

- a. One of those was mentally impaired.

	Age.	Instruction.		
		None.	Rudim.	Prim.
Parents non-alcoholic :	18-25	8	2	3
	26-30	2	3	3
	31-40	3	3	8
	41-50	3	1	2
	51-60	5	2	3
	Totals .....	21a	11b	19c

Of those marked by letters :

- a. 10 were degenerates.
- b. 1 doubtful condition.
- c. 5 degenerate, 1 epileptic, 1 doubtful mental condition.

	Age.	Instruction.		
		None.	Rudim.	Prim.
Parents alcoholic and insane in the family:				
	18-30	3	3	4
	31-40	0	0	1
	41-50	0	0	1
	51-60	1	1	0
Totals .....		4	4	6

	Age.	Instruction.		
		None.	Rudim.	Prim.
Subjects non-alcoholic. Parents alcoholic:	18-20	7	5	2
	21-30	3	3	1
Of those marked by letters:	31-40	1	1	0
a. 2 were degenerates.	46	0	1	0
b. 2 were degenerate.				
c. 1 was degenerate.		11a	10b	3c

	Age.	Instruction.		
		None.	Rudim.	Prim.
Neither alcoholism nor heredity:	18-30	11	10	7
	31-40	5	1	2
	41-50	1	0	2
	51-60	0	1	1
Totals .....		17	12	12

*Recidivists Sentenced to Ten or More Years.*

Ages between	18 and 30	31 and 40	41 and 50	51 and 60	61 and 70	T'tl.
Number .....	89	37	22	8	2	158
Indulg'g in alcoh'ic exces's	46	23	15	6	2	92
Parents alcoholic .....	39	9	4	3	0	55
Members family sentenced.	25	9	2	0	1	37
Degeneracy .....	25	7	7	0	1	40
No education .....	15	5	6	4	0	30
Rudimentary education....	25	17	6	2	2	52
Primary education .....	49	15	10	2	0	76

# THE REGICIDES.

BY DR. E. REGIS,

*Lecturer on mental diseases, University of Bordeaux.*

The regicides must be divided into two categories, which have only an apparent analogy between them.

To the first category belong the insane of a special kind; these subjects are generally haunted by an idea that they have suffered a moral injury; this prompts them to seek reparation; with such a point in view, they make pseudo-attempts on some government chief, with the sole intent of bringing about a profitable scandal.

Among the most recent of such subjects are: Mariotti, Perrin, Martial Jacob and Francois.

Mariotti was a Panama employe, who, convinced that everyone was determined to hush up his grievance, followed M. de Freycinet, then Minister of Foreign Affairs, and discharged a revolver as he was leaving his carriage. This was in 1885. When arrested, the culprit vigorously denied having had any homicidal intention; had he wished to kill the Minister, nothing would have been easier, he explained, as the carriage was going at promenade speed; besides, he did not even shoot at the carriage, the bullet having been directed toward the ground. His sole aim had been that of being brought before government officials, to whom he could explain his grievance.

Perrin was also an employe, who had had some difficulties with his administration, which had, indeed, punished him severely. He addressed appeals for justice to the President of the Republic, to the Minister of the Marine and the Colonies, and to the President of Council. Having received no answer "from the very ones who dared celebrate the Centennial;—what irony!" as he expressed himself in the *Petit Journal*, on the very eve of the attempted assault, he decided to make a sensation. On the day of the opening of the Universal Exposition, in 1889, he discharged a blank cartridge from a revolver in front of President Carnot's carriage, in order to attract attention and thus obtain justice.

Martial Jacob was an unbalanced inventor, who discharged a bullet into the air in front of President Carnot's carriage as it entered Longchamps during the review of July 14th, 1890; he wished to overcome thus the public indifference towards his best discoveries. Drs. Ballet and Garnier published his case under the title "A False Regicide."

Finally, Francois was an employe of the city of Paris and was also in trouble with the municipal administration. Like others of his type, he began by filing complaints with the authorities. He

then wrote, both in prose and in poetry, to the daily press, published some pamphlets and satires as well as some comedies (*A bas les Masques, les Requins de la mer Rouge, les Comedies du jour, etc.*). He then created a sensation in the Chamber of Deputies by throwing papers from one of the galleries. As this passed unnoticed, however, he chose the 14th of July, 1896, for causing another sensation. He managed to get near President Felix Faure at the review at Longchamps and discharged a blank cartridge at him, in order to attract public attention to the injustice shown him by the administration, as well as to bring to notice his literary productions.

The second category of false regicides comprises those who, while making more or less serious attempts on persons, act under the influence of some variety of insanity, without knowing what they are doing.

Such examples were seen in the persons of Margaret Nicholson. She suffered from delusions of grandeur and imagined that the English crown belonged to her; for this reason she attacked George III., in 1786. She declared that if justice was not rendered her England would swim in blood for one hundred generations.

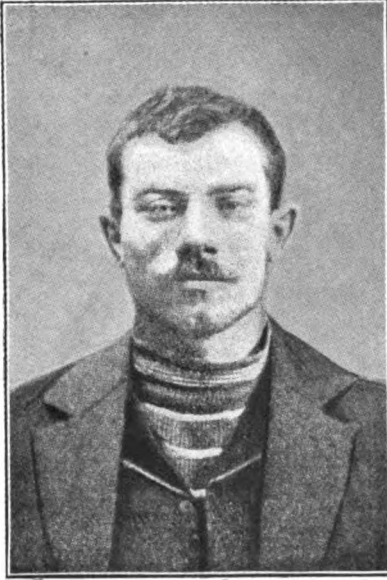
Such also is Charlotte Carlemigellix or Aspasia Migelli, who was treated for insanity at the Salpetriere. She left there uncured and on the first prairial, year III., prompted by her dementia, wounded Deputy Feraud with a sword, kicked him with her foot as he fell and then attempted to treat in a similar manner Deputies Camboulas and Boissy d'Anglas.

Such is also Anne Neil, who, crazed through loss of property, saw in President Johnson the cause of her unhappiness and wished to wreak vengeance on him.

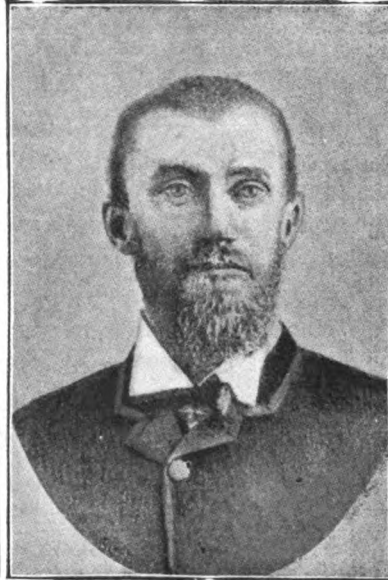
Selma Schnapka is another type of the same category. On Nov. 16, 1900, she threw an axe at Emperor William's carriage when the latter was passing through Breslau; she had intended to kill a lawyer, but in his absence, seeing the imperial carriage pass by, she reacted, as if dominated by a sudden impulse, giving vent to her craving for vengeance upon the very monarch under whose reign a Tribunal had treated her, as she claimed, unjustly.

With these exceptions brought to light, we can now speak of the *true* regicides or typical regicides,—individuals who kill or attempt to kill a chief of a government through political or religious fanaticism.

The most characteristic trait of the regicides is their historic antiquity and their universal existence. One might say that they existed at all times and in all lands. Beginning with Aod or



LUCCHENI (LUIGI),  
*Assassin of Empress Elizabeth of Austria.*



GUTTEAU (CHARLES),  
*Assassin of President Garfield*



DAMIENS (ROBERT FRANCOIS),  
*Attempt on Louis XV.*



RAVAILLAC (FRANCOIS),  
*Assassin of Henry IV.*





LOUVEL (LOUIS PIERRE),  
*Assassin of the Duke de Berry.*



ALIBAUD (LOUIS),  
*Attempt on Louis Philippe.*



JACQUES-CLEMENT.  
*Assassin of Henry III.*



CASERIO (SANTO JERONIMO),  
*Assassin of President Carnot.*



BRESCI (GAETANO),  
*Assassin of King Humbert.*



SALSOU (FRANCOIS),  
*Attempt on Shah Mouzaffer-ed-Dine.*



PASSANANTE (JEAN),  
*Attempt on King Humbert.*

Chud, who killed King Moab, and Judith, who killed Holopherne, according to historical information, in 1498, and 669 B. C., respectively, to Caserio, Luccheni, Bresci, Salsou,—culprits of recent dates, there is still another long list of fanatics, of greater or less celebrity, who follow one another through centuries, as do the links of an uninterrupted chain. Every nation, whatever its government or religion may have been, has had its own fanatics of this nature, their proportion varying especially with their aptitude for mysticism or impulsiveness. And if the Italians are at the head with the number of these types, it is because that nation is more given to mysticism and impulsiveness than are others.

One seldom finds women among these individuals. Judith, Nicole Mignon, Aimee-Cecile Renault and Charlotte Corday, who made attempts on the lives of Holopherne, Henri IV., Robespierre and Marat, respectively, are almost the only ones to be cited. The regicide is almost always a man.

He is generally a young man, seldom being over thirty years of age, as found in the cases of Ravailac, Louvel and Guiteau, assassins of Henri IV., of the Duke de Berry and of President Garfield, respectively. As a rule the age of these subjects may be said to range between twenty and thirty years; sometimes they are hardly eighteen years old, as in the case of Jean Chatel (Henri IV.), Fred. Staps, la Sahla (Napoleon I.), Otero (Alphonse XII.) and Caserio (Carnot). Sometimes these subjects may be mere children, like that young Sipido who in his recent attempt on the life of the Prince of Wales (now King Edward VII.) committed an act both of a fanatic and of a street boy.

As a rule, the regicide springs from a family tainted with cerebral disturbances; most frequently these are insanity, eccentricity, suicide and epilepsy. To mention some of the recent cases only, it is to be remembered that Alibaud's, Nobiling's and Abbe Verger's fathers were suicides, that Passanante's father and two sisters, and Guiteau's father and brother, were insane, that Caserio's father and Luccheni's mother were epileptic, and finally, that several of Salsou's relatives were insane.

As for the regicides themselves, besides the numerous nervous and mental disorders to which they are subject, they are also degenerates; they are beings ill-organized, whose unbalanced equilibrium is manifested by unstableness and exaltation, the latter qualities both being quite characteristic. Their unstableness makes them unable to adapt themselves to surroundings or to fix their aims and guide themselves in life; they change from residence to residence, from occupation to occupation, always dissatisfied, restless, always searching for a change.

Their exaltation consists more especially in an innate mysticism, often even hereditary, which prompts them instinctively to commit violence in politics or religion.

If this tendency does not find favorable circumstances it may remain dormant; but if it finds a sufficient element for excitation in the events of the epoch, war, revolution, dissension of parties, ultra-theories of sects, preaching, or inflamed publications in books or journals, it becomes accentuated almost fatally, up to a degree of most dangerous fanaticism.

Some idea, good or bad, falling on such prepared soil, soon germinates in an exaggerated manner; whatever sane reason such a subject may have possessed up to that date, gives way to a sickly, choking ideation, which ends in the subject's delusional conviction that he is called on to deal a great blow, to sacrifice his life for a just cause, to kill a monarch or a dignitary—in the name of God, the fatherland, liberty, anarchy or some other analogous principle.

The regicide is represented in his entity with his proud and altruistic faith in himself as a judiciary and martyr. In the ancient regicide the predominating idea was, say, to sacrifice a king for the good of the church, regardless of the horrible punishment sure to follow—he was certain of gaining paradise as a reward; in the magnicide of to-day, who kills a chief of a government, a queen, a secretary of state, any representative of authority—the deed is done with a view to attaining the triumph of anarchy at the price of his life.

Such conceptions, in such individuals, easily become obsessional and dominating, regardless of more or less marked opposition encountered. When fed and strengthened by hallucinations, this idea becomes only so much the more obsessional and dominating.

These hallucinations of regicides are analogous to those of the mystics. The hallucinations consist of luminous apparitions of supernatural objects, which dictate orders and reveal the glorious mission to be accomplished. This may take place at night, during sleep or in the daytime, while the subject is in a condition of meditative ecstasy.

Here are some examples:

"Ravaillac had hallucinations during both the sleeping and the waking states; interior voices disturbed him by day and night; he was also victim to violent impulses and diabolical obsessions; at times he was in a condition of marked exaltation, imagining that he was destined to share thought with God, to listen to his will and to have been chosen to execute it."<sup>1</sup>

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<sup>1</sup>) Matthieu, Histoire de la mort déplorable de Henri IV.

Jacques Clement's hallucination is still more characteristic:

"One night, while Jacques Clément was in bed, God sent him a vision of an angel, who appeared in a glorious light, sword in hand, and said: 'Brother Jacques, I am God Almighty's messenger, who informs you that the Tyrant of France must be put to death by your hand; think then of thyself as of one whom a martyr's crown awaits.' This said, the angel disappeared." (2)

Staps' hallucinations are exactly similar. He wrote to his father:

"Even this night, God revealed himself to me. His face was similar to that of the moon. His voice said to me: 'Proceed! You will succeed in your enterprise, but you will perish there.'" (3)

Polrot, the assassin of the Duke de Guise,

"Having dismounted from his horse in a wood, in the neighborhood of the duke's house, fell on his knees,—as he stated himself,—prayed to the Lord fervently to strengthen him in his design to kill the tyrant if the design came from the divine majesty and to deliver him from the evil, if it came from the evil spirit. After this prayer, he felt himself more fortified than ever." (4)

Karl Sand, who meditated a long time before the killing of Kotzebue, preparing for the act during some two years, wrote in his journal in 1818:

"Lord, let me strengthen myself in the idea I have conceived of delivering humanity, through the holy sacrifice of Thy Son. Will that I may become a Christ to Germany, and that, like Jesus, I may be strong and patient in my pain." (5)

Guiteau first conceived the idea of killing President Garfield six weeks before the murder took place. This idea struck him one night, while exhausted with fatigue. He said that at first he revolted against the thought, and that he prayed to God to be delivered from it, or else to tell him whether it was a suggestion from the devil, or a divine inspiration. Later on, when brought before the judges, he put the problem in the following terms, which are significant: "The first question is to learn who discharged the bullet. Was it the divinity? Was it I?" (6)

With a mentality of this kind, it is easy to understand how the regicides are almost always *alone* in conceiving, preparing and accomplishing their deeds, being unwilling to have any one share with them the merits and honors. An effort has always been made,

2) Palma Cayet, *Chroniques*, 1589.

3) Desmarests, *Témoignages historiques*, 1833.

4) *Histoire de deThou*.

5) Desmarests, *Témoignages historiques*.

6) Dr. Folsom, *Proces de Guiteau*.

even for centuries back, to find accomplices for these subjects; it is being done to-day, in the case of Caserio, Luccheni, Bresci and Salsou; the same attempt was made in the cases of Jacques Clement, Jean Chatel, Ravailiac and Damiens. In reality it has always been necessary to recognize that the regicide is a *solitaire* by his very nature, and that ordinarily he has neither accomplice nor confidant, even among his most intimate friends.

Just as their mentality, which is composed of exaltation and mystic vanity, explains the secret fashion of conceiving and executing practiced by these beings, so does it explain their attitude toward the public; their greatest happiness they find in proclaiming to the world, in elaborately passionate terms, the beauty of their theories and the sublimity of their attempts.

This mentality also explains, in spite of some rare momentary and rather physical failures, the courage and truly heroic impassiveness which these individuals exhibit during torture. Both men and women of this type, offenders political or religious, have endured without a word of complaint and almost with indifference, the most atrocious torture. Among them we see Mucius Scevola, coolly burning his right hand on live charcoal for having struck some one in place of Parsenna. William Parry and Balthazar Gerard, in 1584, Charlotte Corday, Staps, Sand and Guiteau as well as Damiens, all belong to the same category. Of the last named, Michelet said that he furnished a most striking example in physiology of how much a man can suffer without dying.

This extraordinary courage, shown by the regicides, made the Hollanders say of Balthazard Gerard that he was possessed of the devil, and the Spaniards claimed that he was inspired by God. Those who watched Ravailiac "to see how his execrable hand was roasting, while he had the courage to lift his head and shake it so as to rid himself of a live cinder which had flown into his beard," thought that, in some mysterious way he had become completely insensible to pain. In our days, this superhuman energy has called out our sympathy towards more than one of these unfortunates, such as Charlotte Corday, Staps, Louvel, Alibaud and even Orsini. Like the ecstasies and the martyrs, (7) they are subject to an exaltation of mind and sentiment which absorbs all the activity, causing the suspense, so to speak, of material life and, consequently, of sensibility to pain.

Among the many others, the following two are astonishing

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7) Alexander Dumas said of a magnicide, John Felton, assassin of the Duke of Buckingham, that "he died with the firmness of a fanatic and the calm of a martyr." (*Louis XIV et son siècle.*)



examples of regicides: Soleyman-el-Habbi, who assassinated General Kleber in Cairo, June 14, 1800, and Alibaud, who attempted to kill King Louis Philippe, June 5, 1835.

Soleyman was impassive: he was sustained by that fanatical excitation which makes men disdain torture. Looking contemptuously at his companions, he reproached them for having little faith; they responded with sighs and maledictions. The young Syrian watched them take their turns in passing under the damask, which grazed their heads, as is the custom, and his face remained calm. When his turn came, he put his hand on the glowing fire, lifted his eyes to the sky and stood this atrocious pain without betraying the slightest emotion. While his hand was burning away, a live coal touched his elbow; surprised by this new pain, Soleyman uttered a piercing cry. Bartholomeo Serra was near him and ironically remarked:

"What, eh! is this your courage? You groan now, because of that live coal, when a little while ago the whole blazing fire was nothing to you?"

"You dog," Soleyman answered, "continue your employment as executioner! you are too unworthy to be permitted to address me. The pain which caused me to cry out was one not ordered by my judges."

When the hand was burnt, Bartholomeo applied the torture of the stake. Soleyman kept up the same impassibility; whatever unusual expression his face betrayed was due to the efforts he made to dissimulate his feelings. Calmly gazing at the spectators, he exclaimed:—"There is no other God than God, and Mohamet is his prophet;" thus giving a sublime proof of the faith that had made him a fanatic. He recited some verses from the Koran and asked for a drink. Having remained upon the pointed stake four hours, a soldier, profiting by an occasion to do so, gave the Syrian a drink. He drank and expired. (\*)

At four o'clock, the executioner arrived at the prison of the Petit-Luxembourg. Alibaud was informed of this. Before going down into the room where everything was ready for the fatal toilet, he asked for a pipe and lit it. He descended the steps with a firm step, and on entering the room where he found his executioner, he sat down on a stool; his face was pale, but it did not betray any emotion or the slightest muscular contraction.

At 4.30 o'clock he started out, surrounded by municipal guards; with a firm step he crossed the Luxembourg gardens and went along the alley of the Observatory, expressing his republican opinions. He said: "Yes, I die for the Republic. I repeat that I have no accomplice. I disclaim everything that the *procureur-general* has said about my private life; I am as pure as was Brutus and Sand; like them, I wished for the liberty of my country!"

Alibaud came out of the carriage, a black veil hanging over his face; he was placed at the foot of the instrument of torture and M. Sajou read him the death warrant. During the reading of this document, which lasted some two minutes, Alibaud did not manifest any uneasiness, his countenance was calm, he straightened himself and lifted his head proudly, and as the last sentence was read: "He will be executed immediately," he cried out: "I die for Liberty!"

The executioner tore off the black veil which covered the criminal's

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\*) Fabrice Labrousse, *Mort de Kléber*.

head. Alibaud was pale, but his features retained their look of energy; as the executioner made him turn around and fixed him on the death board, the man cried: "I die for Liberty! . . . for the good of humanity, for the extinction of the infamous monarchy! . . ."

When already fixed to the death board, Alibaud, by a supreme last effort, threw his head backward and cried out:—"Adieu, my brave ones, adieu! Long live Liberty!"

This is how the regicides of former days died, and how, with very few exceptions, magnicides of to-day die.

It is impossible, it seems to me, to consider these individuals as ordinary criminals and not to see in them fanaticized sick, almost at the point of suffering from delirium. They are so identical, one to the other, that their resemblance may be traced trait for trait.

On the ground of the *ensemble* of their natures, I define them as follows: *Degenerates of a mystic temperament, who, misguided by a political or religious delirium, complicated sometimes by hallucinations, think themselves called on to act the double role of judiciary and martyr; who, under the influence of an obsession that is irresistible, kill some great personage, in the name of God, the country, Liberty or Anarchy.*

I think that when one wishes to treat of these subjects, this is the only psychological manner in which the regicides are to be considered. Besides, the regicides who survive almost invariably end in insanity and complete dementia; this confirms my opinion that they are unbalanced. As examples may be cited: Sahla, Galeote, Passanante, Berardi and Acciarito.

And yet, although sick, although delusional, although impulsive, they are almost always treated as responsible individuals, condemned to death both in order to punish them and to make examples of them.

For my part, I think this method to be both erroneous and unprofitable and that society would be the gainer by treating these dangerous subjects, who so often cause upheavals of governments, as insane patients.

This is a question, however, which I may treat of in the future, as there is reason to fear that the magnicides will yet have to be seriously considered.\*

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\* *Revue Philomathique*, December, 1900.

## ACUTE DELIRIUM

BY B. I. SEMIDALOW AND V. V. VEIDENGAMMER.\*

Dr. Soukhanoff (1) has reviewed the important literature on this subject in his communication to the Society of Neurologists and Psychiatrists at Moscow, and we shall, therefore, omit repeating references. We shall only remark that the majority of French psychiatrists (Briere de Boismont (2), Ball (3), Brand (4) and others) look on acute delirium as being an individual disease; whereas the Germans, (Mendel, Furstner (5), Meynert (6), Schule (7) and others,) consider it as a symptom of a clinical complexity. In the analysis of three new cases, Dr. Soukhanoff is of the opinion that acute idiopathic delirium is by its evolution and course nearer in semblance to an infectious disease than to anything else. The same opinion was held by Briand, and in recent literature by Bianchi and Piccinino (8). Rosari (9) is of the same opinion, particularly since the above mentioned authors succeeded in two cases of acute delirium in isolating a bacillus of definite morphological and biological properties from the sub-arachnoid fluid. These discoveries warranted the above stated opinion. Cabitto (10), of Genoa, however, made similar investigations in five well defined cases of acute delirium, and failed to find confirmation of Bianchi's opinion. The bacillus found in one of the cases belonged to the variety *Staphylococcus pyogenus albus*. Dr. Cabitto affirms that acute delirium is an independent disease; he bases this on the whole clinical tableau of the disease. Popov (11) and Khmelevsky (12) have given their attention to this question within the last three years. The former finds in a case of puerperal acute mania that the cerebral pathology, as shown under the microscope, resembled that found in cholera and, therefore, concludes that acute mania is a disease of an infectious nature. Kraepelin ascribes to acute delirium a

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\*) Voprossi Nervno-Psichitcheskoi Meditzini, Tom V.

symptomatic role, similar in nature to the condition discovered in some cases of progressive general paralysis with hallucinations, where all symptoms of acute delirium are present. Binswager (14) divides the disease into three groups, according to the gravity of its nature. Alzheimer (15) is of the opinion that acute delirium cannot be considered as an independent disease.

Considering the divergence of opinion regarding the individuality of acute delirium, we cite below two cases of that disease.

I. V. N. K., 34 years old, entered the hospital November 13, 1896. There is no information as to her heredity, neither is it known to what degree she practiced temperance in the use of alcoholic drinks. At all events, she was not an excessive drinker. She was the mother of two children, the younger being fifteen months old. She had had no miscarriages. She had separated from her husband and had no occupation; she was free from syphilis and other diseases. She was always flighty, careless and expansive in her ideas, and for this reason her friends were unable to give the exact date of the appearance of the disease; they stated, however, that her condition had become appreciably abnormal about the latter half of October, as she then became quite excited and made numerous and aimless trips to the city. She became violent, tearing her clothes and assaulting those near her; her speech was incoherent, and from what could be understood of her phrases she seemed to have some ideas of grandeur, refused food, and suffered from insomnia.

On admission to the hospital she was emaciated and pale; the body showed slight bruises. The tongue was coated, the breath was fetid, the lips were dry and cracked. The left pupil was larger than the right one, but both reacted well. The knee reflexes were absent, but the plantar ones were intact. There was no tenderness on pressure of either the muscles or the nerves. The gait was normal, as was the speech. The internal organs seemed to be in good condition, the pulse was 90, and it was impossible to obtain its tracings. The urine was free from albumen; temperature 37.2 degrees C. When put to bed the patient was in a condition of continuous restlessness, getting out of bed, holding on to her nurse, crawling on all fours, crying, laughing, screaming, shouting, or mumbling. There were various facial grimaces, expressing her corresponding psychic condition, and it was impossible to fix her attention on any question addressed to her. Her uninterrupted speech was incoherent, although it was evident that she had some affective feelings; she said, for instance, "patient," "doctor," etc. There was also a trend of

erotic thought, as may be judged from the incoherent phrases: "It is bed time . . . masquerade . . . Countess . . . four Counts . . . what news . . . nothing to do . . . hurry up . . . so-so, Countess . . . at two o'clock . . . tra-ta-ta . . . did not eat a bite. . . There is the masquerade . . . this is what I like . . . Countess . . . nothing . . . has she pleased . . . come here . . . a joke . . . very well. Ah, oh! what lobsters . . . no . . . four, five . . . Ai, alive . . . what are you doing here? (She threw herself down), . . . to the devil. What a beauty she was to mask . . . black, awful eyes . . . darling . . . there is God . . . the priest, four, five . . . six. . . Ai! . . . masquerade . . . there, here . . . the Countess comes. . . ."

Towards December 1 the patient's condition became worse, the psychic condition was decidedly impaired, and her restlessness was such that she had to be held down in bed; she seemed to have many hallucinations, refused food, had obstinate insomnia and suffered from constipation. The condition of the pupils and the absence of the knee reflexes remained as before; there was an increased degree of muscular twitchings both in the limbs and face. From December 3 onward the temperature rose higher, and there was an irregular variation in its tracing. She lost some twelve pounds in weight, although only weighing 98 pounds to begin with. From what could be understood of her mutterings she seemed to suffer from hallucinations of sight and hearing, which prompted her to be now on the defensive and now on the offensive. She kept on knocking her body against the wall and beating herself; the facial expressions were now (December 20) sheer twitchings of the muscles. On December 16 a furuncle made its appearance on the right shoulder, then on the elbow; diffuse redness covered the nates and heels, and a cyanotic redness covered the wrists and legs. Her movements now became automatic in nature, and the weakness had progressed so fast that the patient was unable to support herself on her feet. Her restlessness continued, nevertheless, although to a lesser degree. Her speech became indistinct, reduced to a blurring of sounds; the face expressed pain, and she ground her teeth at times. In this condition the patient remained during a week, up to the date of death, December 31.

*AUTOPSY.*—The body was much emaciated; there were furuncles on the shoulders and elbows. The nates and heels were the seats of ulcers with black edges. The skull was regular in

form; the thickness of the bones was of medium measurement; the diploe presented irregular patches of sclerosis. The dura mater was slightly adherent to the cranial cap; its inner surface was smooth, and excepting some slight dryness there was nothing else of note. The sinuses were plethoric. The pia mater was slightly oedematous and cloudy along the direction of the art. fossæ Sylvii; here and there there were punctiform hemorrhages, particularly in the region of the left central and temporal convolutions. At the base of the brain the pia mater was thin. The blood vessels at the base of the brain and art. fossæ Sylvii were thin. The lateral ventricles were slightly distended with serum. The gray substance was distinctly hyperæmic, of a gray-red color, and easily contrasted with the underlying white matter; the gray matter was oedematous, brittle and dotted with dark-red foci in the third frontal and central convolution, the island of Reil and the first temporal convolution. In places the foci spread out into the white matter, and the latter was hyperæmic, brittle, and of grayish-rose color, which merged gradually into the normal white color. The ganglia were also hyperæmic. The pia mater and substance of the cerebellum were also hyperæmic; the spinal pia mater had distended blood vessels, and the spinal cord looked hyperæmic on section, with scattered punctiform hemorrhages in both the gray and white substance.

The pleuræ and lungs were normal. There was parenchymatous degeneration of the myocardium, venous hyperæmia of the liver, dark-red color of the spleen, the capsule of which looked shrunken, and on section of the gland the trabeculæ stood out. The kidneys were normal in size, their capsules were slightly adherent in places, and there was venous hyperæmia. The mucous membrane of the bladder was normal, and the uterus was of normal size, although the mucous membrane of the neck was hyperæmic.

On microscopic examination the first noticeable point was the vascular fullness of the pia mater and gray matter. In some places there were seen inflammatory patches of gray matter. The vessels here were overfilled with blood corpuscles, or else there were extravasations. The latter were particularly prevalent in the epicerebral spaces. The pia mater was slightly oedematous, infiltrated with white blood corpuscles and some red ones. The cerebral vessels were also overfilled with blood, and were tense, especially in the deep layers of the cortex; here could also be seen small extravasations and the crowding of the blood corpuscles in the adventitia or the perivascular spaces; the small capillaries



were unusually distended in some places. The lumen of some vessels were blocked up with a homogeneous substance, which stained easily with eosine and picrocarmine; this exudate extended here and there in the perivascular spaces and into the cerebral substance. The vascular walls were thin, the nuclei of the capillaries and small vessels were swollen and increased in number; here and there the larger vessels' adventitia also showed an increase of the nuclei. In the distended perivascular spaces and in the adventitial spaces they were crowded in round cells. The distension of the vessels with blood was also observed in the white matter, particularly near the border line of gray matter; while there were no hemorrhages in the depth of the white matter, there were gatherings of round cells around the perivascular spaces. In the superficial layers the lumen of the capillaries and small vessels was crowded with red blood corpuscles and some leucocytes; nuclear proliferation was particularly noticeable here. The neuroglia nuclei were swollen, especially in the deep layers, and the number of nuclei was here also increased. The nerve cells were perceptibly changed, their protoplasm did not stain with carmine; the cells seemed wrinkled. Granulation was not observed, and pigmentary deposit was seen only here and there. The nuclei of the cells were shrunken, angular, irregular in form and stained with haemotoxylineosin into a homogeneous bluish-red color, or into red, in places; the nucleolus was either invisible or else could be seen as a sheer dot. Changes in the cells other than those above mentioned were as follows: In the deep layers of the cortex the cells were swollen, the protoplasm stained poorly, the nucleus was swollen, with a blurred outline, and the nucleolus was seen distinctly. There were various degrees of these cellular changes, and finally one could see granular degeneration of the cells. In preparations, after Marchi, the cells showed evidences of fatty degeneration. The number of nerve cells was considerably diminished in all the layers of the cortex, but this was particularly marked in the peripheral layer; there was no distinct line of demarkation between the various layers. The above mentioned cellular changes were particularly marked in the third frontal convolution in the island of Reil in the first temporal, and in the central convolutions. Among the markedly changed cells there were seen some normal ones. On the whole, the degrees of the cellular changes seemed to depend entirely on the vascular changes in the region.

In the deep layers were seen lymphatic infiltrations; the pericellular spaces were dilated and filled with lymphoid elements.

The myeline fibres distinctly showed the presence of irregular swellings and straining. The pia mater was injected, both in the cerebral and cerebellar regions; there was some round-cell infiltration, especially in the region of the Pons Varolii and the medulla oblongata. In the fourth ventricle and the Sylvian duct were some capillary hemorrhages. The pia spinallis was hyperæmic, especially in the lower spinal region; the membrane was slightly thickened and infiltrated with round cells, especially about the posterior columns. The vessels in the white and gray matter of the spinal cord were full and distended and more marked in the gray matter, and in both the white and the gray matter there existed scattered hemorrhages. The thoracic part was the seat of the most marked changes. The anterior and lateral columns presented nothing of note, except an increased quantity of the spider cells; but in the Marchi sections could be seen degenerated tracts in the lateral columns. In the posterior columns the vascular fullness was characteristic (eosin-hæmotoxylon); the neuroglia was oedematous, the quantity of its nuclei increased, and lymphoid elements were scattered here and there; the axis-cylinders were swollen, and were particularly marked in Gull's columns in the upper regions. The ganglion cells were impaired mostly in Clarke's columns, showing fatty degeneration; the anterior horns showed similar changes. The peripheral nerves also had degenerated fibres; changes were also seen in the muscular fibres.

Looking over the general pathological changes, it is evident that this was a case of acute inflammation of both the cerebral substances and the pia mater, the inflammation being of a hemorrhagic nature.

From a diagnostic point of view the two signs which lasted throughout the disease—inequality of the pupils and absence of the knee reflexes—pointed to an organic disease from the beginning. Although the temperature was not typically high, the character of the delirium could not be confounded with any other. We had occasion to watch a parallel development of acute delirium in a general paralytic, where both respective delirii retained their individual traits. This case will be cited later on.

*(To be concluded.)*

# ON THE DUTY OF THE STATE IN THE MATTER OF THE PREVENTION OF THE BIRTH OF CRIME AND OF ITS PROPAGATION.<sup>(1)</sup>

BY LOUISE G. ROBINOVITCH, B. & L. (Paris), M.D.

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GENTLEMEN:—So far as the progress of medical science is concerned, the past few decades have essentially been periods of the growth of the preventive rather than of curative applications and methods. With the general increase and spread of accurate scientific knowledge and information, and with the growth of more specific and intelligent appreciation of the importance and significance of cause and effect, the axiom that “an ounce of prevention is worth a pound of cure” has met with universal recognition, and the entire medical system of the day has evolved into a chain of protection against the encroachment of disease, rather than of the marvelous cure of the old empirical school.

During this significant change in the treatment of the pathological conditions of the body, many old-time superstitions have been swept away. With compulsory vaccination, the theory of the personal rights of one individual as against the welfare of a community has become an exploded vanity of the past; with the institution of a quarantine, the fallacious theory of the personal importance of individual and of commerce have both been relegated to their appropriate niches, along with the other barbaric simplicities of by-gone ages. The old-time objection to the so-called “paternalism” of government has been nullified by the establishment of boards of health, with powers equal to those of the judiciary.

So much for the progress of preventive science in the field of the appreciable and immediate public health.

Why, then, with the recognition of the status of crime as a

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1) Read before the Fifth International Congress of Criminal Anthropology, Amsterdam, Holland, September, 1901.

The author is indebted to Dr. Frank W. Robertson, Superintendent of the Elmira Reformatory, for the loan of photographs of the institution and its inmates, for exhibition at the Congress.

pathological human condition, should not the hand of the government be stretched forth in a like effort at prevention of the inception of the birth of crime? Why should the governmental power still be restricted to the discredited methods of punishment and, on rare occasions, reform, in place of prevention? Does it not seem absurd that nations should be taxed right and left for the support of the criminal, for the punishment of the criminal and for the reform of the criminal, while almost no attention is paid to the prevention of the birth of the criminal?

Has it ever been argued that the criminal is an inevitable result of nature? Outside of the fanaticism of certain orthodox creeds, has it ever been intelligently claimed that crime was the eternal heritage of mankind?

It is a self-evident proposition that a disease curable in an advanced stage is easier curable in an early stage. If the institutions for the reform of criminals are of any use, then there is ten times as much use for the institutions for the *prevention* of criminality. After all, crime is a relative and a comparative, rather than a positive and concrete quantity. In some cases, crime is admittedly due to a pathological condition of the brain, and a minute exposé of this condition would no doubt prove of much interest and might enable us to determine directly just how the pathological brain differs from the normal. But all this interesting conjecture must be laid aside for the present; it is more fitting for us to consider here the methods to be pursued in preventing the inception and evolution of crime and to lessen its propagation.

The claims I advance are as follows:

That crime is attributable in great part to hereditary influence.

That crime is also attributable to education, to lack of education, to environment and to lack of environment.

Taking up the first of these broad claims, well known to all psychiatrists, I would call your attention to a paper submitted by me to the International Congress of Medecine, Section of Psychiatry, Paris, 1900, in which the assertion was made and proven that forty-eight per cent. of the criminal children received in the Ste. Anne Asylum, Paris, are the offspring of alcoholic parents. At the New York State Reformatory at Elmira the alcoholism of the ancestry of the inmates is thus tabulated:

Clearly traced .....	3,278 or 37.1 per cent.
Doubtful .....	926 or 10.5 per cent.
Temperate .....	4,623 or 52.4 per cent.

The result of my personal researches on the subject of heredity warrants the assumption that the 10.5 per cent. of alcoholic parents, above marked as being "doubtful," may safely be accounted as actual cases of ancestral drunkenness. This, when added to the 37.1 per cent. of the positive cases of ancestral alcoholism, gives a grand total of 47.6 per cent., which is a figure extremely near to the one obtained by me in Paris.

In the report to the Congress above referred to, two specific cases were cited as being typical of the criminal handled by the asylum physician. For the purpose of elucidation, a like case is herein presented.

*CASE.—Morbid Criminal.—Physical Stigmata of Degeneracy.—Epilepsy and Simulation of Epileptiform Attacks.—Housed, Alternately, By Prison and Asylum Since the Age of Seventeen, Altogether Twenty-seven Times Up to 1899.—Offenses: Assaults, Pocket-picking and Thefts.*

A. F. G., age 40, was admitted to the Ste. Anne Asylum, Paris, June 3, 1899. The history of his antecedents and his personal history of childhood, are not to be had. He is undersized and stutters, and has stigmata of degeneracy, facial asymmetry and internal strabismus. He is subject to epileptiform attacks, which are sometimes real and sometimes simulated. After alcoholic excesses, in which he indulges, the genuine epileptiform attacks are aggravated.

The subject has been making the rounds of prisons and asylums since the age of seventeen, and from the asylums he has invariably made his escape. Up to 1899 he had been committed twenty-seven times. The commitments have generally been necessitated by dangerous acts. He steals and resorts to violence when apprehended. In 1881 he assaulted his father. In 1888 he was arrested for pocket-picking. He steals anything he can lay his hands on. On May 26, 1899, he escaped from the St. Lizier Asylum the second time.

The patient is a typical criminal degenerate; irresponsible, although he realizes the viciousness of his deeds. When brought into the office for examination before the physician who had received him on numerous previous occasions, the patient nonchalantly remarked:

"It is not bad! I have been waiting at least half an hour; I salute you!" He then proceeded to grimace and poke fun at the physician. When asked how long he had stayed at the St. Lizier Asylum, he replied:

"I need give you no account about that, doctor. It is in prison

that I should be now, not in an asylum. Or, if I am to be put into an asylum, then all the prisoners should be consigned to asylums. I should then be in my proper sphere. I am fully responsible for the misdemeanors I commit. For instance: I was on my good behavior from 1896 to 1898, and did nothing wrong. When I steal I am well aware that I am committing a crime, and I do it of my own free will."

The patient states that he made believe that he was an epileptic when at the Bicêtre Asylum. He simulated the attacks "at least as well as 'T.'" ("T" is his friend, whose life history is quite similar to the history of this patient.) The patient is very proud of his ability to simulate epileptiform attacks. He has practiced this with great perseverance since 1877. Of his ability to simulate the attacks, he says:

"Just you stake twenty sous and you will see whether I know my business."

The patient learned to simulate these attacks outside the asylum walls, and he says:

"In the asylums one comes in contact with the sick, not with the healthy," thereby intimating that there was little he could have learned from a genuine epileptic.

The patient is thoroughly acquainted with the various asylums, and begs not to be sent to Bicêtre, from which, he says, it is not easy to escape.

"If you send me there," was the threat he made to the physician, "you will not make your rounds again after our first subsequent encounter; I assure you of that."

The man's whole life is a series of misdemeanors, felonies, larcenies, assaults and dangerously extravagant deeds. His alcoholic habits tend to make him most violent and dangerous after indulgences.

The above case is an example of the born criminal as generally handled by the asylum physician. Of low intelligence, such a criminal is troublesome, dangerous and a burden to the community.

No better proof of the universal influence of heredity, so far as the production of the criminal is concerned, could be adduced, than that contained in the data likewise submitted to the Congress of 1900, wherein was exposed the influence of psychoses and neuroses of the parents and of the collateral members of the family, as well as alcoholism of the collateral family, as additional causes of criminality. This abstract of a clinical table shows the hereditary taints in fifty criminals examined.



## ABSTRACT OF THE CLINICAL TABLE.

Physical stigmata of degeneracy in the children....	13
Both parents alcoholic .....	2
Father alcoholic .....	22
Mother alcoholic, father sober .....	1
Both parents temperate .....	8
Psychoses and neuroses of, and physical stigmata of degeneracy, in parents .....	13
Alcoholism, psychoses and neuroses of the collateral members of family .....	10
Children other than patients born in the 50 families.	77
Of those 77, there died .....	40
Families analyzed in which no other children born besides the patients .....	2

## RECORD OF THE 37 CHILDREN LIVING.

In good physical condition .....	27
Afflicted with hip-joint disease.....	1
Afflicted with bronchial trouble .....	1
Afflicted with meningitis .....	4
Afflicted with convulsions .....	3
Criminal .....	1

It is, of course, difficult to estimate just what the extent is to which syphilis is a factor in the production of criminal offspring. In looking over histories of criminal patients, one striking feature noticed is the absence of data as to the existence of this disease in the parents. In our own table, collected in one of the largest cities in the world, not a statement occurs regarding the existence of this affliction in the families. The obvious reason is that people are either ignorant of the presence of the disease among them, or else are unwilling to confess it. The reports of the Reformatory at Elmira say in this regard:

"Thirty-two and fifteen-hundredths per cent. had, or were affected previously, with venereal diseases on admittance. These figures are small in my estimation and lack reliability, as most prisoners are unwilling to speak the truth except where the presence of scars from the surgical operation forces them to acknowledge the disease."

How much more difficult, then, is it to obtain an avowal from the parents!

Whatever the percentage of syphilis and other diseases in the

parents may be, one may conclude that the morbid criminal offspring, whether rocked in the cradle of degeneracies, of syphilis, or of alcoholism, comes into the world a diseased subject in his psychic being.

From the various influences of the hereditary conditions, we are brought into immediate contact with and consideration of the condition of the subjects themselves. When we find them exhibiting an unusual percentage of alcoholic taint, we are forced to look at the matter in its actual light, regardless of our own theories and inclinations.

The report of the institution already above referred to, the Reformatory at Elmira, says (Report for 1898, p. 119):

"Out of the 2,000 inmates, 79.95 per cent. acknowledge being addicted to various forms of alcoholism, and only 20.05 per cent. claim to be total abstainers. Six out of every ten prisoners assert that their criminal acts were committed while more or less intoxicated or when recuperating from a periodical spree."

The influence of poverty as a factor in the production of criminality has ever been a favorite topic. It is almost needless to state that clinical study disproves the existence of any basis for this theory (1). Pauperism does not engender crime; a condition of pauperism may influence and help develop vicious tendencies; a glance at the figures quoted from the Elmira Reformatory report will shed much needed light on this question of the influence of pecuniary conditions so far as the consequent evolution of criminal conditions is concerned.

#### ELMIRA REFORMATORY.

##### *Pecuniary Circumstances of Parents.*

Pauperized .....	268 or 3 per cent.
No accumulations .....	7,149 or 81 per cent.
Forehanded .....	1,410 or 16 per cent.

##### *Occupation of Parents.*

Servants and clerks .....	910 or 10.3 per cent.
Common laborers .....	3,210 or 36.3 per cent.
At mechanical work .....	3,006 or 34.1 per cent.
With traffic .....	1,505 or 17.1 per cent.

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1) If my opinions on this subject are not in accord with those of our eminent colleague, Dr. Jul. Morel, of Belgium, it is because the pauperism analyzed by me is the pauperism of the United States, where the condition of pauperism is not so prevalent as to obscure all other underlying causes.

*The Professions, So-called.*

Law .....	48
Medicine .....	65
Theology .....	32
Teaching .....	51

Total .....196 or 2.2 per cent.

In proceeding with this demonstration I shall find it necessary to refer voluminously to the Elmira Reformatory, because this institution is the largest of its kind within my knowledge; it is the most complete in its appointments, and the systems used therein for over two decades in analyzing and forming statistical tables, as well as the treatment accorded to the inmates, are the most scientific and ideal so far as my knowledge extends.

Elmira has achieved fame by reforming criminals. What method has she pursued? The report of this institution says:

"The courts commit men under the indeterminate sentence system, leaving the period of retention to be determined by the Board of Managers; the essential requirements of the Parole Board are as follows:

"(a) A knowledge of a trade sufficiently to compete in outside life with the average mechanic or professional and by competitive labor prove an ability to sustain one's self in communities.

"(b) Faculty to use the elements of mathematics taught, also language and composition, so as to construct and use easily sentences spoken or written.

"(c) Regulating one's habits so as to prove the capacity to associate unrestrictedly in society, join in its liberties without endangering our social fabric.\*

"It has been discovered and conclusively proven, both by our experiments here and elsewhere, that *manual* training properly adapted and taught to the pupils pursuing courses therein, has great importance as an educational factor. In public schools this takes form as a part of the general scheme of education; with us, the reformatory scheme, manual training, is vastly more specific in purpose, also in variety of its adaptation."\*\*

Consider a case analyzed and treated on this basis of theory:

"Cons. No. 5,890,‡ for instance; colored, convicted for grand larceny, first degree. Maximum penalty, ten years. Received March 31, 1893. Antecedents: Father had no education, mother

\*Loc. cit., p. 69.

\*\* Loc. cit., p. 70.

‡Report, 1898, p. 75.

could read and write. Pecuniary condition, none. Occupation of father, horse dealer. Brother of patient in County penitentiary, three or four months. Prisoner thirty days in jail, drunkenness. He always lived at home; cannot read or write. Occupation, jockey, odd jobs. Associations not good; intemperate. Natural capability good, and he is sensitive.

"Proposed Treatment: Teach laundering and moulding. Result: He failed intermittently in arithmetic ten times in the first two and one half years of his life at Elmira. Up to the time when he began his record in manual training, 1897, he failed in arithmetic eleven times. Then he began to improve, every failure approaching nearer the maximum mark of 75 per cent. necessary to a sustained credit in the subject. In June he passed with 90 per cent. mark, and from this time on there is only one failure. He graduated after having five perfect months with high credit in arithmetic, and was returned to the usual demands of institution life, affecting his release. The first month after leaving manual training, December, he was promoted by earned advance to the upper first grade. The permanency of the eradication of his defects is shown by the marking for the months after graduation, as follows:

December, 1897, arithmetic	.....95	per cent.
January, 1898,	.....75	" "
February, "	.....85	" "
March, "	.....95	" "
April, "	.....90	" "
May, "	.....85	" "
June, "	.....80	" "
July, "	.....95	" "

"In August he was paroled, having served five years, three months and nineteen days of his maximum commitment of ten years. His parole release was effected through the improvement in arithmetic as noted above, with corresponding improvement in demeanor, resulting in eight perfect months following his graduation from *manual training*.

"Reports from him received since leaving the reformatory show that he is doing well."

Does it not at once become apparent that the particular objects of this institution are, first, to do away with unintelligent education, then to supply intelligent and appropriate education; to do away with improper and harmful environment, and to supply healthy and proper environment? The prisoners are studied individually, and every one is submitted to such a course of training

as he is best fitted for by his natural capacities and capabilities. So much is this the case that among the professions taught are those of such high classes as cabinet making, fresco work, engraving, photography, etching, telegraphy, electricity and engineering.

Regard again the results of this system of treatment.

"Cons. No. 7,401 was a wanderer before he arrived here, having worked as a dry goods clerk, cloth cutter, wireman, farm hand, laborer, etc. On arriving here he was assigned to learn the machinist trade. He was graduated from the class and assigned as assistant instructor. On parole he secured employment at the trade taught him here with wages of \$15 per week."

"Cons. No. 7,412 was a laborer and tramp before coming here. Assigned to learn the machinist trade. Graduated and assigned as assistant instructor. Paroled to employment at his trade at \$13.50 per week."\*

You have clearly appreciated the end to which my argument is tending. Thousands of cases are brought to our view by the various reformatory institutions, cases which have come under treatment as aggravated examples of criminal subjectivity, and which have been refined by scientific process into cases of normal manhood. Does not the query present itself as to why a subject should be found to be criminal before admission to a reform institution when he is found not to be a criminal after discharge from such an institution? The antiquated theories of fear and punishment have long been discarded. It is now an admitted fact that fear of punishment does not operate to retard or lessen crime. Inevitably we are forced to conclude that a condition exists in the education and in the environment of the growing generation which has something to do with the fact of its abnormal growth, or its psycho-pathological growth, if I may be allowed to use the term in this connection. If a system of education different from that hitherto accorded a subject is more beneficial to him and to the community, then is the previous system faulty and the central power which furnishes the previous system is to blame for this faultiness.

If an environment different from that to which a subject has hitherto been accustomed is productive of a higher moral tone in that subject, then is the previous environment more blameworthy for its evil effects than is the subject of that environment. And lastly, if a public intelligence, viewing these varying conditions,

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\*Loc. cit., pp. 66-67.

still allows the faulty system of education and the culpable state of environment to continue, then the public is little justified in complaining of the resulting evil effects in the predisposed subject.

I must not enter here into a lengthy dissertation on the merits of our general system of education. Suffice it, that this general system pretends that all men are equally in need of a similar system of education, of a "Primary Education," as it is sometimes referred to. Suffice it that under the system now in vogue it is taken for granted that all men are born with an equal capability of adaption to environment. Suffice it to remark that in spite of these generally accepted theories, crime is prevalent in society, and, lastly, it is necessary to do no more than to point out the fact that a system of *individual* education and *individual* environment results in the conversion of so-called "criminals" into normal men!

Is there not food for thought in all this? Is there not some argument in all this against the unreasoning and unreasonable system of education which pays no attention to individual requirement or capability? Is there not some argument in all this for the recognition of the artisan in his infancy, of the scholar in his boyhood and of the moral weakling in his youth? To me there seems to exist a condition which calls for the concentration upon the yet unformed character of the child of at least as much attention as is later given to the half-formed or already developed criminal.

Hitherto too much stress has been laid on the efficacy of literary schooling in the prevention of the evolution of crime in the young. It is hardly necessary to state that this claim has no foundation in fact. Treating on this subject, the Elmira Report shows that the following are the percentages of illiteracy and education:

18 per cent. are illiterate.

44.4 per cent. can read and write.

34.5 per cent. common school education.

3.1 per cent. high school and higher education.

Is it not time that we acknowledged that a smattering of literature and arithmetic does not constitute an education for all? Is it not time that we recognized that the education of the child must travel hand in hand with the education of the teacher? Does it not seem self-evident that while the teacher is educating the child he himself should simultaneously become educated in the individual requirements of that child?

I can see no way in which this can be disputed. Some effort



has been made by the Department of Education of the United States of America to achieve results in this direction.

When this system shall have become a reality in the schools of the United States we shall have to go farther, and make a practical application of these scientific results: the pupils found to be in need of manual training and special bodily exercise will be grouped as such at the earliest moment and relegated to the department of the school where such particular training and education will be given.

What will we accomplish by this method? I have answered this question by what has already been stated in reference to the excellent results obtained from intelligent treatment of the doomed subjects, besotted by a life of neglect and criminality. How much more, then, must we expect when the embryo criminal, or half-useful citizen of the future, is drilled intelligently from the early days of his development? Not only shall we thereby nip in the bud, so to speak, a hopeless "hereditary ancestry," and thus avoid the birth of criminals, but we shall also breed self-respecting and self-supporting citizens; more, we shall practice economy for the Government: any given individual will draw on the public treasury only so far as he will be entitled to it in his struggle for an education; there will be no multiple expense of teaching him first in the public schools, unprofitably to him, then paying police, judges and directors of penal institutions to apprehend him, to administer justice (?) to him and then only to do what should have been done in the very first instance—teach him intelligently how to be a useful citizen!

Our duty is evident; we must urge the Government to make a radical change in the school system, so as to establish schools for physical improvement, schools for instruction in the various crafts and industries, schools for the study of the scholars and schools for the determinate training of the psychic entities of the subjects, in a manner no less thorough or intelligent than that of the physical units.

With the greater intelligence consequent on such a system of education must come the period of arrest and decline in the growth of the various physical and psychic vices. Beings possessing a knowledge and appreciation of and capability for self-control are not so liable to become drunkards as are those not possessing those advantages, and if there be any justice in the doctrine of the value of self-respect as a restraining agent, then there is so much more value in the argument for the evolution of an educational system which must be productive of self-respect to a degree at the present time entirely unavailable.

All actual progress in matters pertaining to humanity are affairs of many generations. The impracticable theories advanced from time to time for the prevention of future abnormal births by the regulation of marriage must prove futile, because they are oppressive and unnatural. It is not in that direction that our energies must be concentrated; rather, it is our duty to begin with the present generation and create an ancestral condition calculated to be of benefit to its posterity. If it is true, as I have previously demonstrated, that alcoholism is responsible for forty-eight per cent. of the criminals in existence, then it is our duty to treat alcoholism as a serious evil and not as a jest. If the reformatories find it possible to metamorphose a convicted criminal into a useful citizen by the process of an individual course of education, then is it necessary for society to protect itself by according an individual system of education to every child; and if a system of healthy environment can subdue the proven evil-doer, or if it can cleanse the wavering weakling, then is it the duty of the State to so thoroughly govern itself and to so thoroughly regulate the inclinations of those of its population whose vicious tendencies lead them to produce undesirable and hurtful environments, as to make the existence of such environments impossible, by meting out the most condign punishment to those unregenerates whose single acts and pleasures are productive of many cases of crime, misery and wretchedness.

Gentlemen, this is an age of prevention, and prevention is achieved neither by formulæ, incantations, nor punishments; prevention is achieved by the removal of cause and ability to remove cause is achieved by painstaking study and minute application of the principles brought to light by studious investigation.

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# THE JOURNAL OF MENTAL PATHOLOGY.

Edited by LOUISE G. ROBINOVITCH, B. & S. L., M.D.

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While the nation is mourning the violent death of President McKinley, it behooves the press, both general and special, to seriously consider the crimes of this nature. It is the press that should crystallize the thought, for the collective as well as for the individual units of anarchistic taint, that this country, above all others, is a democratic country; that a President of a Republic such as the United States is a representative chosen by the people; that the infliction of a violent death on the head of this nation is not only a crime against the man honored by his nation, but that it is also an assault on the whole nation itself. It is absolutely necessary that the press treat the criminal in a case of this character with the most evident expression of contempt; to give him a station of importance or even extraordinary notoriety, is to invite hysterical outbreaks of a similar nature.

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The following resolution was introduced by Dr. Louise G. Robinovitch, and being reported out by the General Committee, was unanimously adopted by the Amsterdam Congress on September 14, 1901:

"The Fifth International Congress of Criminal Anthropology, in meeting assembled at Amsterdam, expresses its profound sorrow on the occasion of the attack on the life of the President of the United States, and its consequences. The Congress considers this regrettable deed as a confirmation of the necessity for perseverance in scientific research regarding criminality and the means of combatting criminality, and of eliminating the causes which produce it, in order that we may arrive at a higher conception of humanity and a more just and efficacious state of social safety."

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It will probably be noted that this number of the Journal is devoted, in great part, to the subjects of criminality and criminal anthropology. Several treatises on this subject have been grouped together in this issue, mainly because this is the first number following the Fifth International Congress of Criminal Anthropology and also because the medical profession as well as the bar are still discussing the various phases of the tragedy at Buffalo.

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The communication of "J. R.," published in the July issue, seems to have aroused considerable interest and letters or articles on the subject therein referred to will be published from time to time as space permits.

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PSYCHOPATHIC HOSPITALS.—It is gratifying to see the plural applied to mention of this genus of institutions. This heading figures in the July number of *The American Journal of Insanity*. One hospital is to come into existence in Michigan and is to be connected with the *Ann Arbor University*, and the other is in process of organization in New York. It is rumored that an endowment has been made for this latter hospital, which is to be located in Brooklyn.

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The eminent characteristic of the American is his modesty. Although one always experiences a sense of pleasure when reading an account of marked modesty in man, it seems that sometimes this quality may be carried a trifle beyond the reasonable limit. We read in the July number, (1901), of the *American Journal of Insanity*, that Dr. Sheldon H. Talcott has for many years been practicing the application of bed-treatment for the violent insane, at the State Hospital at Middletown, N. Y. While the European alienists are making almost Herculean efforts to demonstrate the utility of this mode of treatment for the insane, the American physician who deserves credit for the same work in this country should not hesitate to publicly work in the same channels. The improvement in the condition of the insane has always depended on publicity and unceasing exploitation in the glare of broad daylight.

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HOSPITALITY AT AMSTERDAM.—Too much cannot be said of the generous hospitality the people of Amsterdam extended to the members of the International Congress of Criminal Anthropology. MM. and Mesdames van Hamel, Winkler, Wertheim Salomonson, Van Deventer and den Tex outdid themselves, and the congressionists left Holland imbued with an overwhelming sense and appreciation of Dutch warm-heartedness.

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Dr. A. Grimaldi, the abstract of whose learned paper on woman's modesty we publish in this number, speaks in rather vigorous language of woman's present modesty. Although, like a scientist, he supports his statements by exhaustive documentation and leaves no loophole for defense, he is still encouraging in his hope for the future of woman. The panacea for woman's defects, he says, is—education.

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*Ardalion Tokarski*, privat-docent of the University of Moscow, died August 3, 1901, at the age of forty-one years. He was an alienist of world-wide fame and his name is intimately connected with the founding of the first psycho-physiological laboratory in Russia. For some years he edited "*Zapiski Psycho-fiziologicheskoi Laboratorii Moskovskago Universiteta*." He made a reputation for himself as a popular lecturer on the subject of psycho-physiology. He was the author of some thirteen works, the most popular of which is the one entitled *The Disease of Tics*.

B. SEMIDALOW.

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## COMMUNICATIONS.

*To the Editor:*

Commenting at your request upon the communication of J. R., I remark:—

Whether the accused or the community is most to be considered in deciding the issue of the sanity or insanity of the accused, and thus of his guilt or innocence, may be an interesting academic question—but what would you think of a trial judge who should permit the accused of whose innocence he is satisfied to be convicted, because he thinks it would be better for the community to have him killed?

Insanity is a condition. We may know its definition very well, and not recognize it in its subtle forms. You may add rule to rule and thus confuse the investigators, that is, the judge and jury, instead of helping them. The factors are many, often contradictory, and the human mind cannot correlate them or tabulate them according to their precise value, and balance the account as you would a tradesman's bill of many debits and credits. Let the judge and jury hear the whole story and a conviction of the truth will find lodgment in the mind of the judge, and if he is a sensible man, he can help the jury on their way to the truth, and they will declare it by their verdict. The personal equation is large. However, the rules may be written, the judge and jury will get to the result they think the rules were intended to secure. It will be human justice and not an automatic solution. You can reduce many civil cases and perhaps some criminal ones to an inflexible and nearly automatic rule, but insanity as a defence to alleged crime cannot be thus reduced. Justice is a human, not a mechanical function, and, however much we may extol a government by law instead of by men, the criminal law would be intolerable if divorced from the humanity that gives to the accused the benefit of every reasonable doubt of his guilt. This doubt has never been conclusively defined, and never ought to be, since then the innocent might perish if his case failed to square with the letter of the definition.

If a man's brain functions abnormally and he follows its lead is he not entitled to the benefit of the doubt as to his responsibility? J. R. is tired of such cases. He is tired of the "expert alienist." The Kingdom of Heaven is not of this world. It is easy to get along with this expert. If the judge thinks that the



hypothetical man he usually discourses about is not identical with the man on trial, either because of the addition, omission, exaggeration or belittling of material characteristics, let him advise the jury to note whether there is a material difference, and if any, they will generally see it.

I do not think it easy or practicable to treat every plea of insanity according to its degree. Who is to establish the degrees? Is a man wholly crazy, three-quarters, one-half, etc.? Would J. R. grade a scale, say from zero to 100, and slide him up or down it according to some rule? Would he punish a man half crazy half as much as if he were not crazy at all? No, sir; we can never punish as a crime an act committed under the impulse of insanity, unless we become crazy ourselves.

What shall be done with such a man is not a judicial but a police question. He must not be punished, but if dangerous, must be restrained, so long as the dangerous condition lasts, and no longer, unless it is likely to recur. Mistakes may be made in restraining him too long, or not long enough. Against these we must guard as best we can. The accused who becomes insane after the commission of an alleged crime must be detained and properly cared for, and not be placed upon trial until he regains his sanity, else he cannot have the fair trial which the legal presumption of his innocence and his right to defend himself entitle him to.

The convict who becomes insane after conviction is the ward of the State, and must be treated with humanity. Who would kill a crazy convict?

And so I think that J. R.'s desire for "the establishment of an absolute series of standpoints from which logical deductions and conclusions may be drawn by the community" is not very near gratification.

The insane man is irresponsible. There is no middle ground. His brain is diseased, or other disease or abnormal condition functions it. He is to be pitied and cared for, not punished.

I do not see how to manage the matter better than we do, except by getting wiser judges and juries.

Of course we have and must have a few rules for our guidance, such as commend themselves to the best experience, such as will enable judge and jury to get as near to the truth as they can, but we want no rules which will take from them the solemn responsibility of doing this. Suppose you formulate a dozen rules by which to detect a lying witness, they would not help you out in this particular case. We should bear in mind that the

power of the jury in capital and other criminal cases to say "not guilty" is supreme over all written law, for it is not reviewable. An honest jury will follow its conviction of the justice of such a case, and will construe the law accordingly.

F. S. LANDON.

*Judge, Court of Appeals, State of New York.*

*The Editor:*

I hold to the belief that all good people have some bad in their compositions, and that all bad people have some good qualities; between the extremes of very good, who are seldom inclined to do wrong, and the very bad, who are habitual wrong-doers, there is a middle class in whom good and bad propensities are nearly equal. The good and those of the middle class who are aided by benign influences yield to the restraints of law. The bad and those of the middle class whose lives are affected by unfavorable circumstances and extraordinary temptations rebel against the limitations which the law imposes upon human conduct. I use the word law in its broadest sense, embracing every rule commanding what is right and forbidding what is wrong.

Willing obedience to law is the natural disposition of all men in their normal state, and to be in rebellion against law is an abnormal condition. The force which controls men in their normal condition is an inherent desire to do right, whilst those in an abnormal state are controlled by innate wickedness, that is, inborn propensity to do wrong preponderating over the opposite force. Whatever may be the immediate cause of a predominating propensity to do wrong, all men whose conduct is shaped thereby are in an abnormal condition, and whether that condition may be properly denominated insanity or not, it is similar to insanity both in its origin and consequences. The malignant who murders for revenge; the robber who forsakes the comforts of home and an honest avocation for the uncertain pursuit of plunder; the moral pervert who casts lustful eyes upon purity only to contrive how he may defile it; the maniac who, like a savage beast, mangles his victim, and the conceited fool, who, for the mere sake of brief notoriety, assassinates an exalted public functionary, are all alike, strangers to happiness and objects of pity. They live only to afflict, their lives are worthless to themselves and to the world; and it is folly to prolong them, either in or out of prisons or asylums.

I would disregard all distinctions between insane criminals and other degenerates who commit offenses. The plea of insanity, however much it may excite pity, should never constitute a legal

defense to shield an offender from suffering the death penalty for a capital crime. In every case of unjustifiable homicide, where the degree of criminality is not reduced to manslaughter, and in every case of rape committed with violence, the life of the offender should be speedily extinguished in the most quiet manner possible consistent with the orderly execution of judicial process.

C. H. HANFORD,

*United States District Judge, District of Washington.*

**Modesty. Physio-pathological and Social Study.** DR. A. GRIMALDI publishes this study in *Il Manicomio moderno*, No. 1, and concludes that the standard of woman should be elevated; she should not hold a position in society inferior to man; the means to attain the aim consist in her instruction and education, moral and physical hygiene, opportunities to occupy positions which are now exclusively masculine, etc. In this manner she will lose progressively that tendency to lie which characterizes her and which quality she utilizes as a method of defense; the same applies to her cruelty, *coquetterie*, love for show, her superstitions and beliefs, the instability of her mind and the unstableness of her modesty. With the progress of civilization modesty has assumed the form of social delicacy, which consists of decency, good taste and the art of pleasing. This is the case in man; the same degree of perfection in modesty can be attained by woman by means of moral, intellectual and physical education. Under these circumstances, the modesty of man's helpmate will not be an obligatory result of law, religion or custom, but a spontaneous manifestation of the inclinations,—a necessity—a habit. Freed from the thought of being a purely sexual unit, broadened into an integrality of personal dignity, based on sentiment of honor and loyalty, developing with a balanced nature and detesting hypocritical lies—their modesty will become what it should be: the purest, steadiest and noblest of virtues; an enchanting ornament, a seducing grace and a faithful bond of love, at one and the same time. (*Annales Médico-Psychologiques*, No. 2, 1901).

**ARCHIVES DE PSYCHOLOGIE** is a new publication edited by two distinguished men: Prof. Th. Flournoy and Dr. Ed. Claparede. The first number contains one hundred pages of original contributions of much interest. We welcome the publication with much pleasure and wish it long life.

## FIFTH INTERNATIONAL CONGRESS OF CRIMINAL ANTHROPOLOGY.

The Fifth International Congress of Criminal Anthropology, held at Amsterdam, September 9-14, was a success from every point of view.

The most striking impression made by the papers presented before the Congress was that of the broadness of the views expressed by the authors. Criminality, crime and criminals were not handled as so many terms or words; they were, instead, considered in their actual relations to effect and to cause. One conclusion reached by the distinguished doctors—Professor A. Lacassagne and Professor Étienne Martin—cannot fail to be of interest. They say:

"Les sociétés ont les criminels qu'elles méritent." It might be said that the scientific conclusions of the majority of the scholars who were present at this Congress were of a similar nature. Unhampered, free-minded, guided by clinical work and science, the opinions of men like Lombroso, Senator Ferri, ex-Prime Minister of Belgium, M. Le Jeune, Dr. Garnier, of Paris; Dr. Dimitri Drill, of Russia; Professor Van Hamel, Professor Baers, of Germany, Dr. Morel, of Belgium, and of many others, must of necessity command the attention, not only of the professions, but also of the respective governments. Glancing through the learned reports of the distinguished members of this Congress, one is particularly impressed by the presence of a dominating note in all the papers, questioning the *why* and the *wherefore* of crime, criminality and criminals. More than one scientist queried: *Are criminals a necessary evil? Why do criminals exist?*

The importance of the work done by assemblies of this character may hardly be estimated. It is to be hoped that the future sessions will be as well attended and as profitable.

The Sixth International Congress of Criminal Anthropology will be held in Turin, Italy, in 1905.

Among the Honorary Presidents of the Fifth Congress were the following:

*Germany.*—DR. A. BAER.

*Austria.*—PROF. M. BENEDICT.

*Belgium.*—M. JULES LE JEUNE.

*United States.*—DR. LOUISE G. ROBINOVITCH.

*France.*—M. CAMILLE GRANIER.

*Great Britain.*—LIEUT. COL. A. B. MCHARDY.

*Italy.*—PROF. LOMBROSO.

*Russia.*—DR. DIMITRI DRILL.

**Sur L'Assistance des Criminels Alienes.** (*On the Housing of the Criminal Insane*). DR. L. S. MEYER deplores the enthusiasm displayed by many in favor of the construction of spacious institutions for the housing of the criminal insane. He says that the experienced psychiatrist cannot possibly endorse the idea that such a plan is a wise one. The author claims that the experience of such institutions already in existence should be a warning against any further construction of such buildings; that the asylums for criminals at Dundrun, near Dublin, at Auburn, N. Y., and at Broadmoor, England, are all sadly celebrated. The seductive idea of massing together the majority of dangerously insane criminals has proven a failure in reality, inasmuch as the influence of the inmates on one another is disastrous; the men plan and execute mutinies, escapes and other dangerous acts much easier than they could were they scattered here and there, in special wards annexed to asylums or prisons. At Broadmoor, Montelupo, and Matteawan, the notorious escapes of dangerous criminals are too well known. The director of the Waldheim prison-asylum, Saxony, also speaks unfavorably of this system.

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**UNE FORMULE FONDAMENTALE DE PSYCHOLOGIE ET SES RELATIONS AVEC LA CRIMINALITE.** (*A fundamental Psychological formula and its relation to criminality*). Dr. M. Benedikt is fond of formulating human manifestations in mathematical language. In a preliminary communication on criminality, he thus explains a formula which, he assures us, will enable us to see the proper form of social elimination and the proper treatment necessary to maintain social safety, and to correct the incorrigible as well as make them harmless.

Every manifestation of life, "M," of whatever organism, of every organ and even every cell, depends:

1.—On the congenital qualities "N"—"Indole" meaning "Nature" in Italian, the Teutonic and Roman languages.

2.—The Evolution "E." In the evolution are embraced all the influences of education, in the broad or narrow senses, environment, climate, events of life, disease, etc., etc.

There is no evolution against "Nature." Evolution may develop certain qualities preferably, neglected or suppressed by others; it can create, counterbalance and balance.

There are such profound influences that they bring out qualities almost as strong as the innate.

Religious and national sentiments and ideas, belong under the above heading, as do the sentiments and ideas of the epoch and the social class to which one belongs. The intellect, morality, taste and will-power are directed by those sentiments and ideas.

The Germans call this part of evolution second nature, or acquired nature. It is designated by the letter "N" and the balance of evolution by the latter "E."

3.—Every manifestation of life also requires an occasional stimulus, which is designated by the letter "O."

Hence the fundamental formula is thus expressed:  $M = (N, +N', +E, +O)$ .

This formula is applicable to all manifestations of life, whether they be those of a cell, of the judging of a Shakespearean tragedy, of a Raphael painting, or of a Beethoven symphony.

Some schools of criminology have studied principally the element "N;" others—the elements "N" and "E" and others have centered all attention on the factor "O."

Every one of these principal elements is composed of secondary ones, which it is quite important to know as to their relative or absolute value. One must be guided by the formula in the question under consideration.

The criminal who has abnormal innate qualities is prompted to commit anti-social acts, and is called *agenerate*. Those of perverted evolution, principally by reason of unhappy surroundings, are called *degenerate*; those committing crimes occasionally only, are termed *egenerate*.

### Sur un cas de Paralyse Generale Avec Hallucinations. (*A case of General Paralysis with Hallucinations.*)

DR. V. TRUELLE presented this case: The patient had a degenerate heredity and was herself feeble minded. Two years before the admission to the asylum, she began to manifest two distinct phases of disease: one pointed to the presence of general paralysis and the other to that of delusions of a simple degenerate. When in the asylum, the two maladies were distinct and characteristic, each one coexisting with the other. Eight hundred and fifty-nine histories of cases admitted to the City Asylum were examined and the conclusions are that where general paralysis is complicated by delusions of persecution or melancholia, psychic or alcoholic heredity is found to exist to a marked degree (61.47 per cent.); delusions of persecution or of melancholic nature do not generally enter into the symptomatology of simple general paralysis. This confirms the rule laid down by Magnan that in general paralysis the degree of the delirium depends on that of the cerebral lesion, while the existence of the delusions depends on the previous hereditary predisposition. (*Annales Medico-Psychologiques*, July, 1899.)

**Pseudo-paraplegia of Hysterical Nature in a Child Ten years old.** DR. AUSSET. There was complete paralysis of the lower extremities, but the patient made much resistance when an attempt was made to induce either flexion or extension of the limbs. There was no muscular atrophy, but there was marked anæsthesia up to knee-cap; above that the sensibility was normal; there was no hyperæsthesia. The diagnosis of hysterical paraplegia was made and the child was cured by suggestion within some twelve hours. (*Gazette des Hospitaux de Toulouse*, February 2, 1901.)



**CASES OF ADULT GENERAL PARALYSIS WITH CONGENITAL SYPHILIS.**—The cases are reported in the *British Medical Journal*. In both cases the father of the patient had had syphilis and died of general paralysis, thus showing a direct heredity in cases of this disease. (*New York Medical Journal*, March 9, 1901.)

**LE TRAITEMENT PAR LE REPOS AU LIT, EN MEDICINE MENTALE**  
*Dr. Alexandre Paris* has tested the bed-treatment for the insane at the Mareville-Nancy Asylum, and is convinced of its beneficial results. If some object to this mode of treatment because of the extra expense attached to it, there is much to be economized in many other ways: there is less destruction of linen and other objects in the wards, there are less wounds inflicted on both patients and attendants, artificial feeding does not have to be resorted to as often as when the maniacal patients are up and about, and there is less expense in the matter of using hypnotics. From a surgical standpoint, this mode of treatment is most encouraging; there are less cases of metrorrhagia, wounds, fractures and especially crural hernias in the women's wards. Before this treatment was instituted, the author had many cases of this form of hernia, which were due to straining during violent behavior, or to shrieking. The reducible hernia is almost unknown now, and the strangulated hernia is quite exceptional.

It must be remarked that cases of hysterical mania are better treated in isolated rooms: a highly excited maniac of this form, when removed from the general ward into an ordinary room, quiets down within a short while. Isolated cells have been out of existence in this asylum since 1890. (*Arch. de Neurologie*, May, 1901).

**CLINICAL STUDIES IN PATHOLOGICAL DREAMING.**—*Prof. A. Pick* cites several cases which manifested a peculiar kind of dreaming during the wakeful state. In its construction, this dreaming resembles ordinary dreaming. The patients relate that no sooner do they find themselves alone and undisturbed than they fall into a condition of absorbing reverie. Often, even the entrance of anyone into the room is unobserved by the dreamer. When spoken to, however, the patients wake up and act according to the exigencies of real life. One patient, a law student, remained in this condition of pathological dreaming for two days, imagining himself a Boer general and participating in the war. The ordinary dreams, if present, are quite apart from these pathological dreams. (*Journal of Mental Science*, July, 1901).

**Intorno alla sensibilita termina delle varie mucose** (*On the Thermic Sensibility of The Various Mucous Membranes.*) *DR. MARCO TREVES* experimented on the mucous membranes in men and women and concludes that the thermic sensibility of the buccal, nasal, rectal and other membranes is less marked than that of the skin; this sensibility seems to decrease in degree with the distance from the periphery (*Arch. di Psich., Sc. Penali ed Antropologia crim.*, Vol. XXII., fasc. III.)

### Une Nouvelle Theorie Du Systeme Nerveux. A PRENANT.

The new theory of the nervous system, as reported in the *Revue Scientifique*, May 4, 1901, may be called the *fibrillary* or *electric* theory; a delicate fibrillary structure penetrates every cerebral cell and its prolongations, reaching, without interruption, to the sensory and motor regions. The function of this structure is that of transmitting electro-nervous currents. Under the influence of the electric excitation, the nervous cell undergoes a chemical modification; this is expressed by the changes of the chromatic bodies, the cellular and dendritic form and body at that moment. The first change would indicate that the role of the nerve cell was that of secreting something material, which modifies the received excitation, and of adding to it something of itself; in other words, function and nutrition are exchanged. The changes of form and volume may be attributed to electro-capillary phenomena in the cell, the purpose of which is to cause the cells to approach one another and thus give rise to reciprocal excitation. This is a necessary occurrence before certain physiological acts can take place. It is a sort of vital induction. In a word, the current is formed by external excitation, the fibrils transmit it; the cells modify it; the cells induce the current into one another and harmonize in function. (*Revue de Psychologie*, May, 1901.)

**FIVE YEARS WITHOUT CELLS.**—*Dr. John Bresler* has been using the bed treatment for the violent insane, to the exclusion of the single cells, during the last five years, and the results are most satisfactory. He gives a detailed account of the administrative method, which is of practical interest. For the day service, three attendants are assigned to care for eleven violent patients in one ward, and a fourth attendant is always within call. At night, two attendants are in charge of the same ward, one being on duty up to midnight and the other after that time, a third attendant, who can be called in by ringing an electric bell, sleeping in a room adjoining the ward. The cases treated in such wards are the most violent ones, such as acute and chronic mania, maniacal epileptics, general paralytics, periodic insane, etc. The hystero-epileptic seem to be the most troublesome.

The wet pack is resorted to for calming the patients, while the chemical hypnotics are seldom used. *DRS. KALMUT and WATTENBERG* have also written on the subject of the bed treatment. (*Psychiatrische Wochenschrift*, No. 10, 1901).

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The next meeting of the *American Medico-Psychological Association* will be held in Montreal, the second week in June, 1902. The committee of Arrangements is composed of Dr. T. J. W. Burgess, Dr. George Villeneuve, Dr. A. Vallee, Dr. James V. Anglin and Dr. E. Phillipe Chagnon. Dr. Perrigo has been asked to assist the local committee. (*The American Journal of Insanity*, July, 1901).

**Etudes Des Differents Etats Fonctionnels De La Cellule Nerveuse Corticale Au Moyen De La Methode De Nissl.**

(*Studies of the Various Functional Conditions of the Cortical Nervous Cell by Means of Nissl's Method.*) PAUL VAN DURME.

—The intimate structure of the nervous cell, the significance of its chromatic substance and the histological modifications of the nervous cell during activity are considered, as viewed by the scientists of the day. To this are added personal researches, which include the technique and the functional condition of the cells of Purkinje and that of the cortical cerebral cells, the latter during brain rest, as well as during excitation of various durations; the cellular changes are considered in the various layers of cells: 1, molecular; 2, small pyramidal; 3, granular, in the occipital lobe; 4, large pyramidal cells, and 5, in the layer of polymorphous cells. The conclusions are:

(a) In the rabbit the cells of Purkinje, the cells of the cerebellum and the nerve cells of the cerebral cortex (frontal, temporal and parietal regions) are, during rest, dark and rich in chromophil elements.

The various zones of the cerebral cortex show dark cells of variable sizes and forms.

The intimate structure of the cellular body and of the nucleus of the dark cells, particularly with reference to the spongioplasma, is difficult to discern.

(b) During activity, the cellular body and the nuclei of the cells of Purkinje, as well as of the cerebral cells, gradually become impoverished in chromatine, thus bringing better to view their intimate structure. This rarefaction of the chromatine seems to take place first in the nucleus (intermediary cells). (The cells are divided into dark, light and intermediary).

(c) We suppose that the fibrillary reticulum of the cytoplasm and caryoplasma in the cells of Purkinje and in the granulospongyous cells of the brain consists of nitrogenous molecules, which have a great affinity for the chromatic substance; and this, in its turn, is rich in chemical potential force; the molecules attract this nutritive substance during the period of assimilation in their sphere of activity, and during the period of disassimilation they break up this substance in order to convert its potentiality into kinetic energy.

(d) During activity, the body, the nucleus and the principal protoplasmic process of the cells of Purkinje and the cells of the cerebral cortex, augment gradually in volume. In the process of the chromatine diminution, the nucleus seems to lead first; from

the oval shape it changes into a spherical one, spreading out transversely.

We think that the turgescence of the nervous cells in activity is due to the fact that the element of disassimilation—sarcosolactic acid—augments the osmotic power of the cells; the cellular fluid becomes hypertonic in relation to the parenchymatous lymph.

(e) The cells in activity have a positive chemico-toxic influence on the leucocytes, probably due to the products of disassimilation. It is more than probable that the attraction of the leucocytes into the interior of the nervous cells is not for the purpose of ridding the latter of their catabolic products, but to supply them with chromatic substance in order to contribute to their nutritive reparation.

(f) The nutritive intervention of the leucocytes tends to prove that the chromatine of the nervous cells is a nucleio-albumine.

(g) The condition of fatigue is characterized by the presence of cells excessively poor in chromophile elements, but rich in vacuolæ. The fatigued cells are not always as turgid as are those in activity, for, when the fatigue has lasted some time, the catabolic products diffuse exteriorly from the cell and the cellular fluid then becomes hypotonic in relation to the parenchymatous lymph.

(h) When the fatigue is decreasing, the cells again become capable of assimilation before so becoming capable of disassimilation; but the attractive force of the protoplasmic molecules is still so feeble that the chromatine disaggregates and dissolves with the greatest facility before the fixation of the cell. Once more the nucleus is the forerunner in these changes before the protoplasma. (*Neuraxe*, February, 1901.)

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THE NEXT CONGRESS OF ALIENISTS AND NEUROLOGISTS of France and the French-speaking countries will be held in 1902 at GRENOBLE, and in 1903 at PAU, under the Presidency of Dr. Regis, of Bordeaux, the general secretary being Dr. Bonnet, of the Asylum of Saint Robert.

*Subject on Mental Pathology.*—On the Anxious Conditions in Mental Diseases, by Dr. Lalanne, reporter.

*Nervous Pathology.*—Tics in General, by Dr. Noguès, reporter.

*Medico-legal.*—The Auto-accusers from the Medico-legal standpoint,—Dr. E. Dupré, reporter (*Progress medical*, Aug. 10, 1901).

## BOOK REVIEWS.

**Le Traitement des Nevralgies et Nevrites.**—Par A.-F. PLICQUE, *Ancien interne lauréat des Hopitaux, Ancien Chef du Laboratoire d'Electro-therapie de Lariboisiere, Medecin de la Compagnie des Chemins de fer du Nord. Bailliere et Fils, 1901.*

This little volume is devoted especially to the therapeutic treatment of the various forms of neuralgia and neuritis; the practical side of the question is particularly dwelt on, and the busy student or practitioner will find in this a valuable guide.

**La Suggestibilite.**—Par ALFRED BINET, *Dr. es Sciences, Lauréat de l'Institut (Academie des Sciences et Academie des Sciences morales), Directeur du laboratoire de psychologie de la Sorbonne (Hautes-Etudes). Avec 32 figures et 2 planches, hors texte. Schleicher Frères. Paris, 1900.* Some authors of to-day claim that "there is no such thing as hypnotism" and that what was formerly understood by the title of "hypnotism" is equivalent to what is now known as "suggestion," this latter being the "key to animal magnetism." Bernheim and Delboeuf are some of those who proclaim the above. In the present work, the author endeavored to discover whether suggestion could be applied successfully to individuals, without resorting to the practice of hypnotism for the accomplishment of the experiment. It is proven by numerous and varied experiments on school children that suggestion can be made without the aid of hypnotism. The methods employed are calculated to please the most pedantic opponent of the application of the "occult science"; in fact, the method is absolutely inoffensive—it is rather scholarly and pedagogic. This enables the experimenter to study suggestibility of school children without encountering administrative opposition. One is thus enabled to find out, through answers written by the pupils, the degree of their suggestibility. Not only this, but we are also enabled, by repeating such experiments in schools, to render great service to the children, by guiding them in the direction of self-reliance and self-correction. We must utilize this means of studying suggestibility without the aid of hypnotism. It is seen from the experiments cited that when a given individual is rebellious to suggestibility of one kind, he may still be most susceptible to that of another. It would be interesting to study up the question bearing on the relative suggestibility of subjects easily hypnotized, and those refractory to hypnotic influence. This would be a study particularly interesting, as applied to idiots and imbeciles, who seem to be susceptible to suggestibility.

The volume is handsomely gotten up and has 391 pages.

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**On the Blood Pressure in the Normal, Cheerful and Melancholic Man.** *Dr. Bernard Hollander* quotes the figures from the *Muenchener Medizinische Wochenschrift*, 1892, as follows:

In normal man, the pressure is 152 mm. Hg.; it falls in cheerful people to 145 or 140 mm. Hg. and rises in melancholiacs with anxiety to 160 mm.; in very marked cases, with anxiety, it may reach 180 mm. Hg. (*The Journal of Mental Science*, July, 1901.)

# THE JOURNAL OF MENTAL PATHOLOGY.

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## **The Trial, Execution, Autopsy and Mental Status of Leon F. Czolgosz, Alias Fred Nieman, the Assassin of President McKinley.**

By **CARLOS F. MACDONALD, A.M., M.D.,**  
**NEW YORK.**

Professor of Mental Diseases and Medical Jurisprudence in the University and  
Bellevue Hospital Medical College: Ex-President of the  
New York State Commission in Lunacy.

### **WITH A REPORT OF THE POST-MORTEM EXAMINATION**

By **EDWARD ANTHONY SPITZKA,**  
College of Physicians and Surgeons, New York City.

## **THE TRIAL, EXECUTION, AUTOPSY AND MENTAL STATUS OF LEON F. CZOLGOSZ.**

BY **CARLOS F. MACDONALD, A. M., M. D.**

The terrible shock which the assassination of President McKinley, by Leon F. Czolgosz, at Buffalo, New York, on September 6, 1901, imparted to the entire civilized world, and which naturally engendered in the public mind a mingled feeling of horror, vindictiveness and revenge,—a feeling which was exceeded only by the profound sense of sorrow and depression which took possession of the people, when a few days later it was realized, that despite the highest efforts of surgical and medical skill, a fatal result to the distinguished victim was inevitable,—naturally sug-



gested, both to the lay and medico-legal mind, the need of inquiry as to the mental status and responsibility of the perpetrator of so repulsive and atrocious an act. Moreover, there are many persons who are disposed to hold that the enormity of such a crime is in itself sufficient evidence to warrant the opinion of the existence of insanity, merely because it seems to them inconsistent with the principles of ordinary rational conduct, even though aside from the act itself there be nothing in the entire life and conduct of the individual that is suggestive of mental disease. On the other hand, there are many who, in view of the magnitude of the crime, would oppose the granting of exemption from the ordinary consequences of capital offenses even though the offender were a raving maniac. Suffice it to say that the position taken by such persons, in either case, is untenable, and would be an untrustworthy test of responsibility as regards the ends of justice, whether viewed from a legal or a medical standpoint.

It need scarcely be said that the question as to whether or not a certain act is the offspring of mental disease, cannot always with safety be determined by the act itself, but must be determined by all the attendant circumstances leading up to and surrounding the act.

"An act of violence," says Ray, "must not be attributed to insanity merely because to a person of high culture and correct morals, it seems inexplicable on the ordinary principles of human conduct."

According to the Code of Criminal Procedure of the State of New York, Section 21, the legal test of mental unsoundness, as applied to criminal cases, is based on the assumption that insanity is a question of law to be determined by the court, and that the question of responsibility in mental disease hinges upon a knowledge of right and wrong as to the particular act at the time it was committed; whereas medical science holds that insanity, in its relation to crime, is always a question of fact to be determined like any other fact in evidence, aided of course, in such case, by the interpretation of expert opinion evidence, and that whenever its presence can be so determined, the accused should be absolved from responsibility, irrespective of the form or degree of his mental disease or the nature of the act committed. "All that medical science has to do in any such case," says Dr. John P. Gray, "is to say whether the deed springs from disease or not. If it does not, the man is responsible, however ghastly, seemingly purposeless or vindictive the act may be." In other words, medical science holds that the whole question of responsibility should rest upon the presence or absence of mental disease,

and not upon a knowledge of right and wrong as regards the nature and consequences of the act in question, and that that which in fact is a condition of mental disease cannot in law be a condition of mental health.

The question to be determined then, in the case of Czolgosz, from the legal standpoint, as embodied in the Code of Criminal Procedure of the State of New York, was: When he shot the President did he know the nature and quality of the act he was doing, and that the act was wrong? If this question could be determined in the affirmative, then he was responsible under the law, and punishable for the offense which he committed, even though he was medically insane, so to speak.

On the other hand, the question to be determined from the standpoint of medical science was: Was Czolgosz at the time he committed the act a victim of mental disease or mental unsoundness? If so, according to the dictum of medical science, he was not responsible and hence not punishable for the act he committed. These are the sole questions upon which the guilt or innocence of the accused must rest, whether in the eyes of the law or in the judgment of medical science, and it follows logically that if he were guilty of crime owing to the absence of mental disease, he was equally guilty within the intent and meaning of the statute. Such being the case, the subject of the responsibility of the accused resolves itself into a question of health or disease—sanity or insanity. Hence the application of the legal test may be dismissed from further consideration here, and we may proceed to consider the question of his responsibility from a medical point of view.

#### THE TRIAL.

The trial of Czolgosz which took place in the city of Buffalo, N. Y., on September 23-4, 1901, Hon. Truman C. White, Presiding Justice, was neither attended by delay "nor harassed by the trivial technicalities of the law." The "machinery of justice" moved so smoothly and so rapidly, that the jury was procured, the case tried, and a verdict of guilty rendered within a period of two court days, with sessions from 10 to 12 o'clock in the forenoons and 2 to 4 o'clock in the afternoons, the time actually occupied being eight and a half hours in all. The proceedings were marked by no melo-dramatic or sensational episodes or unseemly wrangle among counsel; while the fact that, under the extraordinary circumstances, the trial was not anticipated or interrupted by any riotous demonstration against the prisoner—any attempt at mob or lynch law—when he appeared in public, affords

striking proof of the respect for law and order which prevails in the community where the trial was held. Czolgosz was brought into court closely guarded by a double cordon of police, and handcuffed to an officer on either side. He was neatly dressed and cleanly in appearance, his face clean-shaven, and hair neatly combed.

The preparation and trial of the case on the part of the people by the Hon. Thomas Penny, District Attorney, and his assistant, Mr. Haller, was well nigh faultless. Shortly after his arrest, the District Attorney procured from Czolgosz a statement several pages in length, which was taken down in longhand, in narrative form, each page of which he signed after himself making corrections and revisions as to matters which he claimed the reporter had misapprehended. This statement gave in detail facts concerning his premeditations and preparations for the crime, also his movements for some time prior, and up to the time of the shooting. The District Attorney also within a few hours after the crime was committed, proceeded to put the prisoner under the observation of local experts in mental disease, namely, Drs. Joseph Fowler, Police Surgeon, Floyd S. Crego and James W. Putnam. These physicians had free access to him, down to and during the trial—covering a period of nearly three weeks during which they examined him repeatedly and made a careful study of his case with reference to his mental condition. The District Attorney also permitted the experts on either side to confer together freely, and allowed those for the defense to have free access to all facts and information relative to the case in his possession—a proceeding which in effect was equivalent to the appointment of a commission of five experts—three for the prosecution, and two for the defense—to determine the prisoner's mental condition. This course on the part of the District Attorney, marks a new departure in the methods of getting expert evidence in criminal trials where the question of mental responsibility is involved, which is to be highly commended as a practical measure tending to eliminate much superfluous testimony, and at the same time to minimize the danger of contradictory expert opinions.

In view of the great importance of the case, it is regrettable that no experts were called to testify on the trial as to the prisoner's mental condition, in order that it might appear on the record of the trial that his mental state was inquired into and determined by competent authority. Had the experts on either side been given the opportunity of thus stating officially their unanimous conclusion, together with the grounds on which it

was based and the methods by which it was reached, it would have left in the public mind no room for reasonable doubt as to its absolute correctness, and that it had been arrived at only by the rules of professional conduct governing the examination of such cases.

The attorneys assigned by the court to the defendant, at the request of the Bar Association of Erie County, were ex-judges Loran L. Lewis and Robert C. Titus, both prominent lawyers and highly respected citizens of Buffalo. For obvious reasons, these gentlemen were reluctant to undertake what they regarded as a most distasteful task, and consented to do so only from a high sense of duty to the public, at the urgent solicitation of the President—Hon. Adelbert Moot—and other prominent members of the Bar Association, on Saturday, September 21st, preceding the trial, which began on Monday, the 23rd.

Respecting the defense, it appears that substantially no preparation was made, beyond a fruitless effort of counsel to confer with the prisoner, and the examinations made of him at their request, by Dr. Hurd and the writer, with reference to his mental condition, and a verbal statement by them to counsel, of their conclusion that he was not insane. It also appears that no plea was entered by the attorneys for the defense, but Czolgosz, speaking for the first time in court, entered a plea of guilty to the indictment, which plea the court promptly rejected, and directed that one of not guilty be entered on the record for the defendant.

Each juror on qualifying said, in answer to the usual question, that he had formed an opinion as to the guilt of the prisoner, but that his opinion could be removed by reasonable evidence tending to show that the defendant was innocent. And yet, to one accustomed to being in court and observing jurors when qualifying, it was difficult to avoid the impression that each of the jurors in this case held a mental reservation to convict the prisoner. Had Czolgosz been on trial for the murder of a common citizen, instead of the President, it is safe to say that not one of the jury, as completed, would have been accepted by the defense; and instead of getting a jury in approximately one hour and a half, that feature of the trial alone would probably have occupied several days.

Having in view the nature and importance of the case, the fact that no testimony was offered on the defendant's behalf, and that practically no defense was made, beyond a perfunctory examination of jurors, and a mild cross-examination of some of the people's witnesses, which was limited to efforts to elicit information respecting the President's condition during his illness

and of his body after death, and a summing up by one of the counsel—Judge Lewis—which consisted mainly of an apology for appearing as counsel for the defendant, and a touching eulogy of his distinguished victim, renders the case, in this respect, a unique one in the annals of criminal jurisprudence.

The jury retired for deliberation about 4 P. M., and returned in less than half an hour with a verdict of guilty of murder in the first degree. Czolgosz heard the verdict of the jury standing, and without appreciable display of emotion. Several of the jurors were reported to have said after the trial, that the jury was in favor of conviction unanimously from the first, and could have rendered a verdict without leaving their seats, but deemed it best to make a pretense at deliberation "for appearance' sake." Czolgosz was remanded to jail for two days, and on Thursday, September 26th, was sentenced to be executed by electricity at Auburn Prison, in the week beginning October 28th, 1901.

When Czolgosz returned to his cell after his conviction he ate a hearty supper, and soon thereafter went to bed and slept continuously until midnight, when the guard was changed, when he awoke for a few minutes, and then slept again until 6 A. M., when he arose and took a short walk in the cell corridor, after which he made a careful toilet, and at 7.30 partook of a hearty breakfast. He talked freely, as usual, on ordinary topics, but maintained his usual silence respecting his crime, and would not talk of the trial or the verdict. On Thursday, September 26th, he was removed from the Buffalo jail to the State Prison at Auburn, N. Y., where he was confined in a "death cell," until his execution took place.

#### THE EXECUTION.

Czolgosz was executed by electricity on the morning of October 29, 1901. The official witnesses, consisting of the Superintendent of State Prisons and other prominent New York State officials, several physicians, three representative press associations, Mr. Spitzka and others and the official physicians, Dr. John Gerin, Prison Physician, and myself, having been assembled in the execution room, and having received the usual admonition from the Warden, as to the maintenance of order during the execution, the prisoner was conducted to the room a few minutes after 7 A. M. Every precaution was taken by the Warden, who had immediate charge of the execution, to minimize the opportunity for notoriety or sensationalism on the part of the prisoner as well as to insure that his taking off should be effected in an orderly and dignified manner.



As Czolgosz entered the room, he appeared calm and self-possessed, his head was erect and his face bore an expression of defiant determination. The guards, one on either side, quietly and quickly guided him to the fatal chair, the binding straps were rapidly adjusted to his arms, legs and body, and the head and leg electrodes were quickly placed *in situ* and connected with the wire which was to transmit the lethal current through his body. These preliminaries occupied about one minute. Czolgosz offered no resistance whatever, but during the preparations addressed himself to the witnesses in a clear, distinct voice in the following significant language: "I killed the President because he was the enemy of the good people—the good working people. I am not sorry for my crime. I am sorry I could not see my father." At this moment, everything being in readiness, the Warden signalled the official electrician in charge of the switch, who immediately turned the lever which closed the circuit and shot the deadly current through the criminal's body, which was instantly thrown into a state of tonic spasm, involving apparently every fibre of the entire muscular system. At the same time, consciousness, sensation and motion were apparently absolutely abolished.

Two electrical contacts were made, occupying in all one minute and five seconds. In the first contact the electromotive pressure was maintained at 1800 volts for seven seconds, then reduced to 300 volts for twenty-three seconds, increased to 1800 volts for four seconds and again reduced to 300 volts for twenty-six seconds—one minute in all—when the contact was broken. The second contact, which was made at the instance of the writer as a precautionary measure, but which was probably unnecessary, was maintained at 1800 volts for five seconds. That conscious life was absolutely destroyed the instant the first contact was made, was conceded by all of the medical witnesses present; also that organic life was abolished within a few seconds thereafter.

Czolgosz was pronounced dead by the attending physicians and several of the other physicians present, after personal examination, in four minutes from the time he entered the room; one minute of this period, as already stated, was occupied in the preliminary preparations, one minute and five seconds in the electrical contacts, and the remainder of the time in examinations by the physicians to determine the fact of death.

#### THE AUTOPSY.

The autopsy was made by Mr. Edward A. Spitzka, under the



direction of the official physicians, Dr. Gerin and myself. The examination occupied about four and a half hours, and embraced a most careful, gross examination of all the viscera, attention being especially directed to the brain and its meninges. The accompanying masterly description of the post-mortem findings and especially of the condition and anatomical structure of the brain by Mr. Spitzka, leaves nothing to be said here upon this point beyond the fact that the autopsy revealed no evidence whatever of disease or deformity of any of the bodily organs including the brain, which was normal in size, shape, weight and appearance, and was well developed in all respects,—a conclusion which was concurred in by all of the physicians present, several of whom had witnessed the execution.

In deference to the expressed wish of the relatives of Czolgosz, and for reasons of a sentimental nature on the part of the State authorities, the Prison Warden declined positively to allow any portion of the body to be removed from the Prison. Consequently, and regrettably, it was impossible for the examiners to retain honorable possession of any portion of the brain for microscopic examination and study. Accurate measurements, however, of the head and its appendages, of the face and of the exterior and interior of the skull, together with detail anatomical drawings and descriptions of the brain were made; also plaster molds of the head from which a cast was subsequently made and photographs of the same—full face and profile—taken. These measurements, together with plates of the drawings and photographs are presented in Mr. Spitzka's report of the autopsy.

In view of its great importance both to medical science and to medical jurisprudence, the writer regards it as fortunate that the State was able to secure the services of so able a brain anatomist and skilled operator and draughtsman as Mr. Spitzka, to make the post-mortem examination.

#### THE MENTAL STATUS.

On Thursday, September 19th, 1901, I received a telegram requesting me to meet Mr. Adelbert Moot, President of the Erie County Bar Association, in Buffalo, New York, on the following morning. On my arrival in Buffalo the next day, Mr. Moot informed me that he had sent for me for the purpose of requesting me to inquire into the mental condition of Leon F. Czolgosz, confined in the Buffalo jail, under indictment for the murder of President McKinley, and whose trial was to begin on the following Monday. Mr. Moot further stated in substance that three local experts had already examined the prisoner for the District

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Attorney, but in view of the enormity of the offense and the fact that there obviously could be no legitimate defense other than insanity, it was deemed important, in the interests of justice, that his mental condition should be investigated by other experts acting in behalf of the defense, or at least independently of the prosecution to the end that the prisoner should be accorded every legal right, there being no desire to convict him if he were not mentally responsible, and that I had been selected for this responsible duty. With a deep sense of the responsibility involved, I consented to act, provided it should be distinctly understood that I was not there as a partisan expert in behalf of either side, but simply in a professional capacity to aid in determining the real mental state of the prisoner, and providing further that my selection would be acceptable to the eminent counsel whom the Bar Association had selected for the defense, should they decide to accept that duty, a matter which was then undecided. On the following morning—Saturday—Mr. Moot informed me that the gentlemen referred to had consented to act, and invited me to meet them in conference, which I did, and which resulted in their requesting me to proceed at once to examine into the prisoner's mental condition and to report my conclusion to them as soon as I had reached one. They also assented readily to my proposal to invite Dr. Arthur W. Hurd to become associated with me professionally in the case, Dr. Hurd being the Superintendent of the Buffalo State Hospital for the Insane, and a competent alienist of large experience in mental diseases. It was also agreed that we should be allowed to confer freely with the District Attorney and with the experts for the people, after completing our personal examination of the prisoner. Being unable to establish communication with Dr. Hurd before evening of that day, and in view of the short time intervening before the trial, I decided to make a preliminary examination of Czolgosz alone, and did so that afternoon, in the District Attorney's office, first disclosing to him my identity and the object of my interview, and informing him of his legal right to decline to answer any question I might ask him.

I examined him again on the following day—Sunday—in the jail, jointly with Dr. Hurd, and in the presence of one of his guards who was questioned at length, respecting his observations of him in the jail, as to his habits of eating, sleeping, talking, reading, etc. We subsequently interviewed the District Attorney and the Superintendent of Police, General Bull, who gave us all the facts and information in their possession respecting the case. The statement which Czolgosz made to the District At-

torney shortly after his arrest, throws much light on his mental condition on the day of the crime, but that official deemed it his duty to refuse to allow me to publish it. We also conferred at length with the people's experts—Drs. Fowler, Crego and Putnam, who stated to us separately and in detail their observations and examinations of him. We also observed him carefully in the court room throughout the trial.

After our examination of Czolgosz, on Sunday, we reached the conclusion, independently of each other, that he was sane, and we so informed his counsel, on Monday morning before the trial began.

It should be said that owing to the limited time—two days—at our disposal prior to the trial and the fact that his family relatives resided in a distant state and were not accessible for interrogation, we were unable to obtain a history of his heredity, beyond what he himself gave us.

Czolgosz, as he appeared at the time of my examinations of him at Buffalo, may be described as a well nourished, rather good looking, mild-mannered young man with a pleasant facial expression; features, regular; face, smooth-shaven and symmetrical; mouth and ears well formed and symmetrical; teeth, none missing, but in poor condition from neglect; tongue, clean; palate, fauces and uvula, normal in appearance; eyes, blue and normal in expression; pupils, equal in size and normally responsive to light and accommodation; hair, light brown and slightly curly; stature, medium—five feet seven and a half inches—and weight—estimated—about 140 pounds. The extremities were in all respects normal. The external genitals were normal, excepting two small, flat, unindurated cicatrices on the mucous surface of the prepuce, probably the result of previous chancre, although he denied having had venereal disease other than gonorrhœa. There were no signs of specific nodes or periosteal tenderness over the usual sites of these lesions, nor was there any evidence upon the head or body of traumatism, excepting a slight deviation of the nose due to a blow which he received at the time of the assassination, and a superficial, perpendicular cicatrix on the left face which he said was the result of a slight injury he received when working in a barbed wire factory. There were no tremors or twitchings of the facial muscles, tongue or hands. The pulse and temperature and skin were normal, as also were the special senses, knee reflexes, coordinating power and the sensory and motor functions. Finally, a careful inspection of the entire visible body failed to reveal the presence of any of the so-called stigmata of degeneration. The

almost perfect symmetrical development—especially of the head and face—is a noteworthy feature in Czolgosz' case, although had deviations been found, the fact would have had little weight as tending to show mental disease or degeneracy, as marked asymmetries, both cranial and facial, are frequently observed in persons who are quite sane and above the average in mental capacity.

In answer to questions, he stated, in substance, that he was born in Detroit, Michigan, of Polish parents; that he was twenty-eight years of age, unmarried, and a laborer by occupation; that he was a Romanist, originally, but had abandoned that faith several years ago because he no longer believed in it; that he attended the common schools as a boy, and had learned to read and write; that he had used beer and tobacco, but not to excess; that he had done various kinds of unskilled labor, such as farming, factory-hand, etc.; that his mother was dead, and his father, one brother and a married sister were living; that so far as he knew there was no insanity in his family, and that he had not suffered any serious illness or injury during his life time; that he had never been subject to fits, spasms or vertigo; that he usually ate and slept well, and that his bowels were always regular. He admitted having had sexual intercourse with women, but denied masturbation or other unnatural practices.

Careful inquiry failed to elicit any evidence of delusion, hallucination or illusion. When questioned as to the existence of enemies, persecutions or conspiracies against him, he replied in the negative. He evinced no appearance of morbid mental depression, morbid mental exaltation, or of mental weakness or loss of mind; nor did he display any indication of morbid suspicion, vanity or conceit, or claim that he was "inspired" or had "a mission to perform," or that he was subject to any uncontrollable impulse. In fact, as regards the existence of evidences of mental disease or defect, the result of the examinations was entirely negative. On the contrary, everything in his history as shown by his conduct and declarations, points to the existence in him of the social disease, Anarchy, of which he was a victim.

My last examination of Czolgosz was made jointly with Dr. Gerin, physician of Auburn Prison, the evening before his execution. This examination revealed nothing either in his mental or physical condition which tended to alter the opinion I gave to his counsel at the time of the trial, namely, that he was sane—an opinion, which was concurred in by all of the official experts on either side, namely, Drs. Fowler, Crego, and Putnam, for the

people, and Dr. Hurd and myself for the defense, also by Dr. Gerin, the only other physician who examined him. Furthermore, the prisoner's manner, appearance and declarations in the execution room, together with the post-mortem findings, corroborated most conclusively the original opinion as to sanity,—while his dying declarations that he killed the President because he regarded him as "an enemy of the good people—the good working people," and that he was not sorry for his crime,—all tend to stamp him as an Anarchist. In fact, his bearing and conduct from the time of the commission of the crime to his execution, were entirely consistent with the teachings and creed of Anarchy. Moreover, neither the three careful personal examinations which I made of him—one alone, one with Dr. Hurd, and one with Dr. Gerin—the measurements of his body by the Bertillon system nor the post-mortem findings, disclosed the slightest evidence of mental disease, defect or degeneracy. This opinion is confirmed by the people's experts who repeatedly examined him and observed him from time to time, from the day of the assassination to the close of the trial, and by Dr. Gerin, the physician of Auburn Prison, who observed him carefully during the four weeks that he was in that institution awaiting execution. Dr. Gerin has had exceptional opportunity for the study of criminals, both sane and insane, in his capacity as Prison Physician, and, previously, as Assistant Physician at the State Hospital for the Criminal Insane.

If Czolgosz was a victim of mental disease, the question would naturally arise as to what form of that disorder he was suffering from. If, in answer to this question, we undertake to make a diagnosis by exclusion, we find the following results: There was absolutely no evidence of insane delusion, hallucination or illusion. There was none of the morbid mental exaltation or expansiveness of ideas that would suggest mania in any form, none of the morbid mental gloom and despondency of melancholia, none of the mental weakness of dementia, none of the conjoined mental or motor symptoms that are characteristic of paresis, nor was there anything in his manner, conduct or declarations that would suggest the morbid vanity and egotism, the persecutory ideas or the transformation of personality which usually characterize paranoia or systematized delusional insanity. In fact, at no time during the period from his arrest to the time of his execution, did he exhibit any of the mannerisms, boastful display, etc., or claim to have a "divine inspiration" or "a mission," or make any complaint or suggestion of personal wrongs and persecutions which are so characteristic of para-

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noiaes; nor did he, during his trial, or subsequently, evince any indication of satisfaction or delight at being the central figure of the occasion, and the observed of all the observers, which he was; nor was there any attempt on Czolgosz' part to simulate mental disease. The refusal to talk with his counsel was perfectly consistent with the views which he expressed to the District Attorney soon after his arrest, namely, that he did not believe in law and that he wanted no counsel. He did, however, converse with others, namely, the District Attorney from time to time before his trial, also with his guards at the Buffalo jail, with whom he frequently walked in the corridor fronting his cell, for an hour or two at a time, conversing with them intelligently the while, and making his wants as to bathing, toilet, tobacco, etc., known in a natural manner. He also conversed freely with the people's experts, in their earlier examinations of him, and talked, though not so freely, with Dr. Hurd and myself, and when on arraignment for trial and formally asked to plead, he promptly arose from his chair and answered in a clear voice, "guilty." He also responded promptly when directed by the clerk of the court to "stand up and look upon the juror," as each of the jurors were sworn, and resumed his seat in each instance at the proper time. Beyond this he remained mute while in the court room, and yet to any one who observed him closely it was apparent that he was fully aware of, and attentive to the proceedings.

A recent writer\*—an eminent alienist—discussing the mental state of Czolgosz says:

"We can perceive no indications of mental disease in Czolgosz, and were the absurdity of his statements and acts to be a criterion of mental unsoundness, we should have to establish a new category of insanity for the reception of the various groups of anarchists—not to mention other terrorists.

\* \* \* \* \*

"We deem it an error to regard Czolgosz' mutism in court when called on to plead and before his counsel as an attempt to simulate insanity. This conduct is in line with his rôle expressed in the theatrical declaration, 'I am an Anarchist and have done my duty.' As it was his 'duty' to slay the President, it is his duty to go to death with his lips sealed, and with this intent, first the plea of guilty and his conduct are perfectly consistent. He shows no reluctance to converse on matters disconnected from

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\*"The Mental State of Czolgosz and of Assassins Generally," by E. C. Spitzka, M. D. *Medical Critic*, November, 1901.



the crime, nor even of matters connected therewith, provided they do not touch its preparations and thus betray his associates."

Aside from his reticence to his counsel, there was nothing in Czolgosz' manner, appearance or declarations that was indicative of insanity or of simulating. His reticence toward his counsel, as already intimated, was entirely consistent with his expressed disbelief in government and in law, and his declaration that he shot the President with a clear knowledge of the nature and consequences of the act; and while he pleaded guilty in court and also proclaimed when he went to his death, his reason for committing the crime, and declared that he was not sorry therefor, in a manner which clearly implied that he regarded the act as a justifiable one, he did not claim that it was not a crime on his part as paranoiacs usually do, nor did he in any way indicate that he regarded himself a victim of conspiracy or persecution. On the contrary, he declared—to the people's experts—that he fully understood what he did when he shot the President, and was willing to take the consequences; that "I know what will happen to me—if the President dies, I will be hung." Justice White, commenting on Czolgosz' plea of "guilty" when arraigned for trial—a plea which could not be accepted under the law—said: "The prisoner's plea of guilty indicates that he himself anticipates no escape from the penalty which the law prescribes for a crime of the character alleged in the indictment." Again Czolgosz said: "I have done my duty, I don't believe in voting; it is against my principles. I am an Anarchist." He further said that he had been an ardent student of the doctrine of Anarchy, and had attended many "circles" where these subjects were discussed. He had attended a meeting of Anarchists "about six weeks ago," and also in July; had met and talked with an Anarchist in Chicago "about ten days ago;" that he belonged to a "circle" in Cleveland which had no name. "They called themselves Anarchists." That he went to Cleveland "on no particular business" the Friday before the assassination. He had been in Buffalo for two or three weeks prior to going to Cleveland. "I planned to kill the President three or four days ago, after I came to Buffalo"—from Cleveland—"I don't believe in the Republican form of government, and I don't believe we should have any rulers. I had that idea when I shot the President, and that is why I was there."

In explanation of his abandonment of his religious faith and his rejection of the services of a priest, Czolgosz said the night before his execution, "I would like the American people to know that I had no use for priests. My family are all Catholics

and used to go to church until the hard times of 1893. We had been taught by the priests that if we would pray God would help us along, but it did no good; it didn't help us and we stopped going to church at that time." He also said at this interview: "McKinley was going around the country shouting prosperity when there was no prosperity for the poor man. I am not afraid to die. We all have to die sometime."

It may be said that Czolgosz' belief which he expressed as he went to his death, that the President "was an enemy of the good working people" was a delusion, and such it undoubtedly was in the broadest sense of that term; that is, it was a false belief, but it was in no sense an insane delusion or false belief due to disease of the brain. On the contrary, it was a political delusion, so to speak,—a false belief founded on ignorance, faulty education and warped—not diseased—reason and judgment,—the false belief which dominates the politico-social sect to which he belonged and of which he was a zealot, who in common with his kind believes that all forms of government are wrong and unnecessary—a body of mal-contents whose teachings oppose all government, and who advocate the use of violence to destroy the existing social and civil order of things. By his own admissions, Czolgosz was a devout Anarchist and a firm believer in the principles of "Free Society," as taught by Emma Goldman—of whom he was an ardent admirer—and others. These were the beliefs which furnished the motives for the murderous deed.

That Czolgosz was an Anarchist and actuated in his crime by the motives which spring from the teachings of that sect, are clearly shown by: 1. His declarations after his arrest, namely, that he did not believe in any form of government or law, and that all rulers were tyrants who ought to be put down. 2. His admissions to the District Attorney that he was a member of anarchistic societies or circles, and had frequently attended the meetings of the same; also that he had been influenced in his views by the "lectures" of Emma Goldman; and that when apprehended, anarchistic literature was found on his person, and 3. The recognition and commendation which he has received at the hands of Anarchists at their meetings both in this country and abroad since his death, several of these societies having openly recognized him as such and lauded his action.

The Anarchists' creed teaches that when one of their number is selected to do a certain deed, he is to proceed about it quietly and in his own way, taking no one into his confidence; that, having accomplished the deed, if apprehended, he shall not admit his connection with any other members of the circle; that, if con-

victed and sentenced to die, he shall go to his death without revealing his connection with others, resting secure in the belief that he will be ever regarded by his associates as a martyr and a hero, who died in the discharge of a noble duty. The course and conduct of Czolgosz from the beginning down to his death are entirely in keeping with this creed. And finally the cool and courageous manner in which he met his death, and the fact that from the day of his arrest until he died, he never uttered a word that could be used against his accomplices,—if he had any,—and that he died—as Anarchists who suffer the death penalty always die—without uttering a word that would tend to incriminate any of his co-conspirators, all tend to stamp him as an Anarchist.

In conclusion, the writer having viewed the case in all its aspects, with due regard to the bearing and significance of every fact and circumstance relative thereto that was accessible to him, records his opinion unqualifiedly that Leon F. Czolgosz, on September 6th, 1901, when he assassinated President McKinley, was in all respects a sane man—both legally and medically—and fully responsible for his act.

*85 Madison Ave., New York.*

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## THE POST-MORTEM EXAMINATION OF LEON F. CZOLGOSZ.

BY EDWARD ANTHONY SPITZKA.

The post-mortem examination of Leon F. Czolgosz was performed by the writer under the supervision of Dr. Carlos F. MacDonald, of New York, who was requested by the State Superintendent of Prisons to take medical charge of the execution, with Dr. John Gerin, the prison physician. The examination began at 7:50 A. M. and was completed at 12:30 P. M.

As the body lay upon the table in the dorsal position, the right leg—to which the electrode had been attached—was slightly flexed and a trifle abducted. This attitude of the body has been found by Dr. Ira Van Gieson (1) to be uniform in the electrocuted bodies which he has had occasion to examine. In all the cases which he has examined, the electrode has been applied to the knee reflex.

Corresponding to the attachment of the leg-electrode there was a superficial blistering, with some desquamation of the epidermis and some oedema. At the site of application of the head-electrode, there were only a few signs of vesication, limited to the occiput.

Post-mortem discoloration existed in all the extremities, but not in the trunk, head or neck, where the skin was fairly white. There was post-mortem lividity of the toe and of the finger nails. The pressure of the straps had not produced any discoloration. There was a small urethral discharge, probably of seminal fluid.

The physiognomy may be described as youthful and with rather a pleasant expression. The nose was pointed, slightly retroussé and fairly straight. The eyes were blue, the pupils equal and moderately dilated. The face was oval and symmetrical. The ears were well formed and absolutely symmetrical. The mouth was well shaped and the lips full. The teeth were normal in shape, but in poor condition. The palate, uvula, etc., were all normal. The external genitals were normal. There were two flat cicatrices on the mucous surface of the prepuce, about 5 mm. from the corona glandis. The tissues under and about these cicatrices were not indurated, and the scars were doubtless the remains of chancroids.

The body cooled very slowly throughout the examination, and the greatest amount of heat appeared to be retained in the brain.

Rigor mortis set in about three hours after death. The measurements of the head were as follows:

	Centimetres
Maximum circumference ( $21\frac{1}{2}$ inches).....	54.6
Max. antero-posterior diam. (from glabella to max. posterior point).....	18.7
Max. lateral diameter.....	15.5
Cephalic index.....	82.88
Bi-auricular diameter (between roots of zygomae) .....	15.0
Length of face (from its inter-superciliary point to the superior alveolar point between the middle incisors).....	9.2
Bi-zygomatic diam.....	14.5
Min. frontal diam.....	12.0
Diameter from glabella to inion.....	19.1
From vertex to hair-line.....	12.0
From hair-line to root of nose.....	6.0
From root of nose to its base.....	5.3
From base of nose to chin.....	7.0
Total vertex to chin (diameter).....	25.4
Breadth between pupils of eyes.....	6.8
Breadth of nose at its base.....	3.4
Length of mouth (internally).....	4.0
Length of mouth (externally).....	5.0
Length of ears (both sides equal).....	6.1

A cast has been made from molds of the head and two photographic views, in full face and in profile, are presented here. Unfortunately the left ear in the mold was broken during transportation from Auburn, and the fragments were pieced together with difficulty. The defects have been rectified in the photograph. On the subject the ears were perfectly symmetrical, both as to form and size.

The attitude of the body gave rise to the prominence of the "Adam's apple" and to a slight parting of the lips.

On the skull the following measurements were taken:

Max. antero-posterior diam.....	18.0 ctm.
Max. lateral diam.....	14.7 "

Cranial Index, 81.66.

The head of Czolgosz, as is typical of the Poles, falls into the sub-brachy cephalic class; according to Weisbach the cephalic index of forty Poles was 82.9 (82.88 in Czolgosz).

The measurements of the body taken according to the Ber-

tillon system showed that they were all medium, and every one consistent with the other.

**THE CRANIUM.**—The scalp was divided by means of a median incision passing from the glabella to the inion. On incising the scalp a quantity of dark fluid blood escaped. The scalp was of moderate thickness, firm and well adherent to the skull. The two flaps of the scalp were dissected from the skull and drawn down on either side of the head. The sutures were well marked, and no synostosis was observed. Supernumerary or abnormally developed bones were not discernible.

The calva was removed by a saw-cut passing around the cranium about 1.5 ctm. above the glabella and about 2.5 ctm. above the inion. In Figure 7 is shown the outline of the thickness of the skull along this section. In the removal of the calva the saw was supplemented by the chisel and hammer. The calva came off readily, the dura being non-adherent. There was no marked escape of cerebro-spinal fluid. Along the saw-cut the skull was slightly flatter in the fronto-parietal region on the right side, while it was more curved or rounded on the left. The right parieto-occipital region was a trifle fuller than on the left side. The markings on the internal surface of the calva, such as the groove for the superior longitudinal sinus, and for the meningeal vessels, the digitations, and the impressions for the Pacchionian bodies, etc., were all distinctly marked.

The dura was grayish-white, moderately translucent and somewhat dry; there existed a marked engorgement of dark fluid blood. The dura was neither tense nor loosened. The Pacchionian bodies were of the usual number and distribution. The inner surface of the dura was fairly moist. There were no evidences of hemorrhagic pigmentation or of pachymeningitis.

The brain, invested by the pia-arachnoid, was exposed by crucial incisions into the dura, which was perfectly non-adherent to the membranes within. The brain was carefully removed, and during most of the subsequent examination was kept in a salt solution (about 1 part in 20 of water). At the time of removal (9.45 A. M.) the brain was still very warm, but of firm texture and normal appearance. A few minutes after removal, still invested by the pia-arachnoid, and with the ventricles unopened, the entire brain weighed fifty-one and a half ounces avoirdupois (1,460 grammes).

The base of the skull was normal in every respect.

The pia-arachnoid was of normal thinness, devoid of opacities or other signs of disease—past or present. The only unusual



appearance was an injection of bright red blood in the finer vessels of the pia, due, if we may judge from previous reports of autopsies on electrocuted criminals, to the action of the high electromotive force of the electric current in this part of the body. The pia was stripped off with ease, being nowhere adherent to the cortex.

### EXAMINATION OF THE BRAIN.

In general, the brain presents no marked peculiarities of shape or size. It was firm to the touch, and no portion of it, despite most careful examination, felt softened or indurated.

The brain was divided into its natural segments according to the following method: The ectal border of the optic tract and the *tænia thalami* ("ripa" of Wilder) were used as guides for a single simple incision; those of either side converged cephalad to meet in front of the chiasm; the usual cut through the callosum and the *terma* (*lamina terminalis*) completed a tri-section which left the cerebrum (*prosencephal*) and brain-axis separated as nearly the ideal as can be. This mode of dissection is a modification of Meynert's plan and is a method by which each *hemisphere*, with the *insula* intact, is separated from the brain-stem, whereas Meynert's, by trenching round the *circuminsular* boundaries, separates the convex cortical mass from the brain-stem plus the *insula*, leaving a cortical component attached to the axial structures. The Meynert method, consequently, does not give the weight of the cerebral hemispheres, strictly speaking. This would not be a serious objection, so far as the *caudatum* and *lenticularis* are concerned; but as it also excludes the important cortical area of the *insula*—no inconsiderable portion of the cerebral projecting and associating tracts—it falls short of the modification adopted here.

After the brain had been thus dissected and drained, and the *pia-arachnoid* stripped off the cerebrum, the segments were found to have the following weights:

Left hemisphere (without pia) . . . . .	585	grammes
Right hemisphere (without pia) . . . .	600	"
Cerebellum (with pia-arachnoid) . . . . .	166	"
Isthmus (with pia-arachnoid) . . . . .	64	"

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1,415 grammes

Or a trifle less than 50 ounces.

Examination of the *paracœles* (lateral ventricles) in both hemispheres revealed the veins of the *striatum* (*striatal veins*)

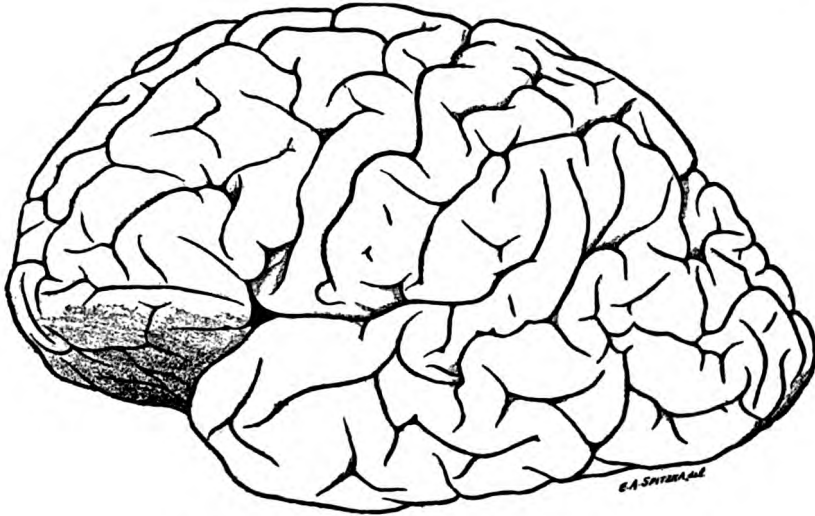


FIGURE 1.—LATERAL VIEW OF THE LEFT HEMICEREBRUM.

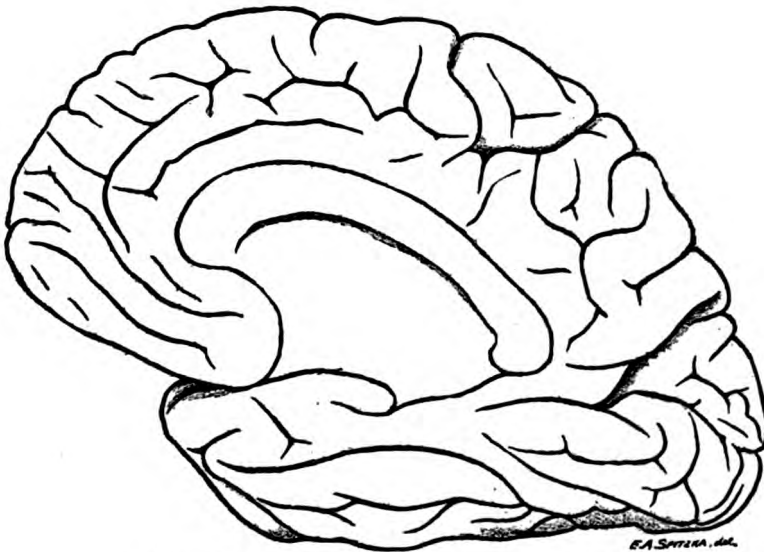


FIGURE 2.—MESIAL VIEW OF THE RIGHT HEMICEREBRUM.

injected with deep-violet colored blood. The cornua were of normal extent and conformation throughout. The endyma was smooth, the choroid plexus was normal and contained little blood, the velum interpositum was normal.

### THE FISSURES AND GYRES.

**LEFT HEMICEREBRUM.**—The sylvian fissure was  $6\frac{1}{2}$  ctm. in length; the episylvian,  $2\frac{1}{4}$  ctm.; the hyposylvian was absent. The presylvian ramus was 2 ctm. in length and the subsylvian 1 ctm. in length.

The central fissure was fairly flexuous and ramified; it was uninterrupted throughout its length and separated from the sylvian by a narrow isthmus. At its ventral end the fissure terminated in a hook-like manner. The supercentral fissure was confluent with the superfrontal, but was separated from the precentral. The superfrontal was distinct in the mid and post frontal regions, but was absent in the prefrontal region. The three-tier type was preserved in the prefrontal region by the existence of a medifrontal fissural segment about 4 ctm. in length, which was confluent with the orbito-frontal. This is not very clearly seen in the figure, owing to the effect of the convexity. The reader is referred to the schematic outline in Figure 8.

The precentral fissure was confluent with a small diagonal fissure, and this in turn with the presylvian. It sent an "anterior percentral ramus" across the medifrontal gyrus to anastomose with the superfrontal fissure.

The subfrontal fissure was independent and sent off several rami into the neighboring gyres. There was a very long radiate fissure.

The precentral gyrus was not very broad as compared with the postcentral gyrus. The three frontal gyres were fairly massive and marked by fissures which ran generally transversely.

The postcentral fissural complex consisted of three segments. The dorsal one was very flexuous and ramified, but independent. The middle segment was confluent with the parietal, and was only superficially joined to the third segment—the subcentral. The transpostcentral was hardly visible on the external surface, but on examination was found to communicate with the circum-insular fissure.

The parietal fissure was notable for the angle it made with the intercerebral cleft, converging rapidly toward it as it passed caudad. It communicated with the paroccipital fissure over a vadum about 6 mm. in depth. Otherwise, the paroccipital did

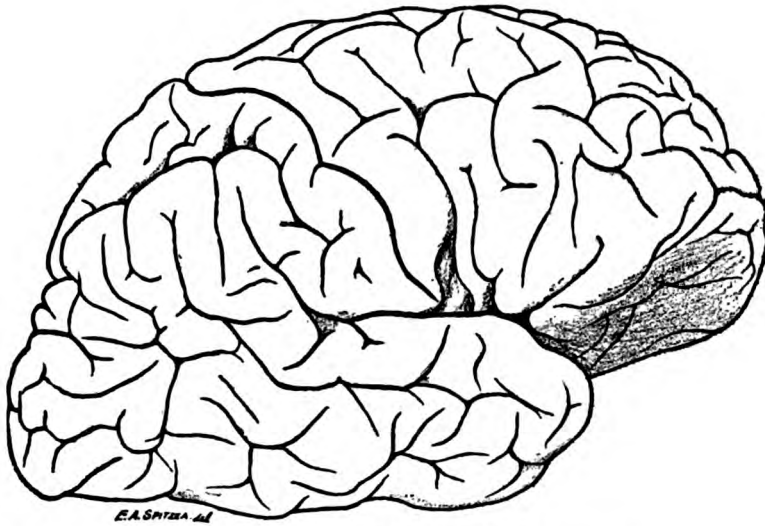


FIGURE 3.—LATERAL VIEW OF THE RIGHT HEMICEREBRUM.

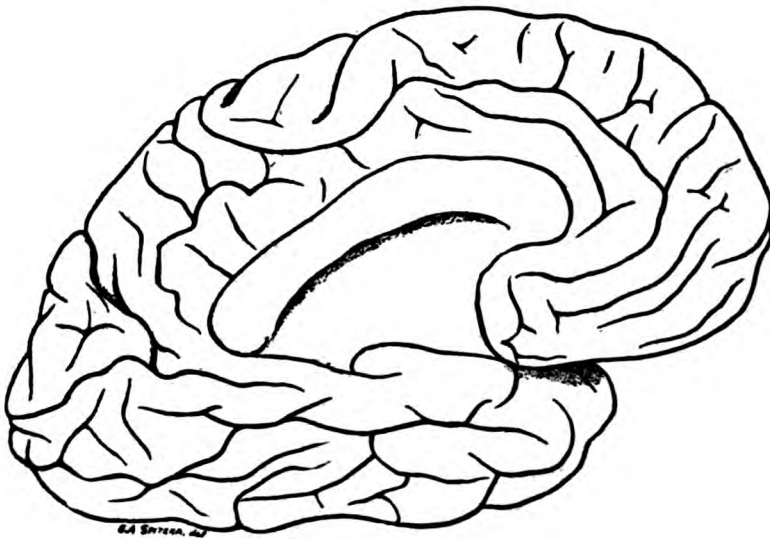


FIGURE 4.—MEDIAL VIEW OF THE LEFT HEMICEREBRUM.

not communicate with any other fissure. There were two trans-  
parietal fissures, and the cephalic one communicated with the  
precuneal fissure on the mesial surface.

The temporal lobe was of good size and shape. The super-  
temporal fissure was uninterrupted throughout its length and  
communicated with the intermedial over a slight vadium. The  
meditemporal fissure was represented by four segments. Nu-  
merous fissures, the "lateral occipital" among them, marked the  
region of the occipito-temporal transition. The postcalcarine  
fissure appeared on the external surface for about 2 ctm.

The postcentral gyrus was of good development and was fairly  
wide. The marginal, angular and postparietal gyral portions of  
the subparietal lobule exhibited a moderate development. The  
parietal gyrus was of cuneiform shape, broad cephalad, narrow  
caudad. The supertemporal gyrus was very sinuous. The re-  
maining temporal gyres were fairly wide and well developed.

The subcalcarine gyrus was wide in its caudal portion. The  
cuneus was small—rather unusually so. The precuneus was of  
good size and conformation. The paracentral gyrus was of  
typical appearance and of the usual size. It was traversed by a  
well-marked inflected fissure, and by a tri-radiate intraparietal  
fissure. The mesial surface of the superfrontal gyrus was of  
moderate size, and was marked by five or six transverse fissures,  
three of which were rami of the supercallosal. The callosal  
gyrus in its cephalic half was doubled by a long fissure running  
parallel with the supercallosal; in its caudal part it was traversed  
by several transverse fissures.

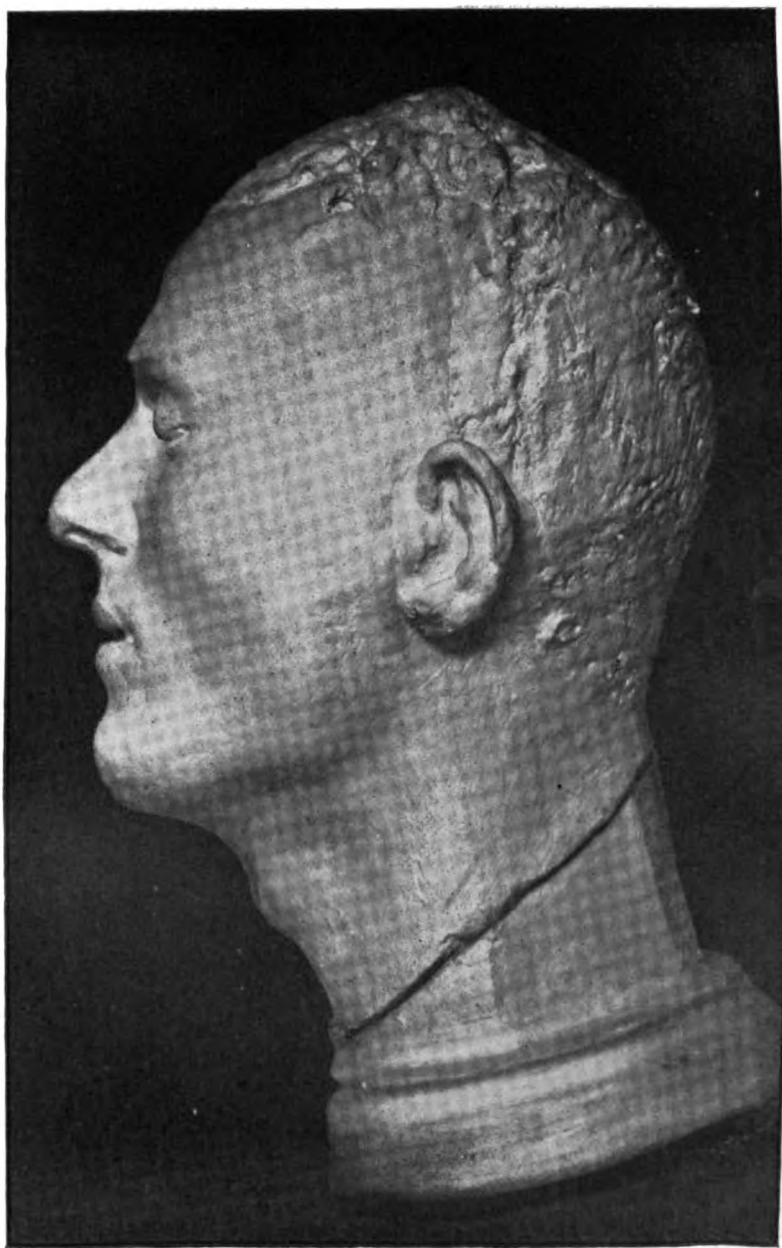
There were two well-marked rostral fissures (rostral and sub-  
rostral) and a short transrostral. The supercallosal fissure was  
long and anastomosed with the paracentral over a vadium of  
5 mm.

The paracentral fissure in turn anastomosed with the precuneal  
over a vadium of 3 mm. The occipital and calcarine fissures  
anastomosed freely. A posterior cuneo-lingual subgyrus tended  
to partially separate the calcarine from the postcalcarine. The  
collateral fissure was fairly well ramified.

The insula exhibited a good development. There were six  
gyres proper, with seven peri-insular digitations. The insula  
was completely covered by the opercula.

**RIGHT HEMICEREBRUM.**—The sylvian fissure was  $5\frac{1}{2}$  ctm. in  
length; the episylvian, 3 ctm.; the hyposylvian,  $1\frac{1}{2}$  ctm.; the  
presylvian,  $2\frac{1}{2}$  ctm.; the subsylvian was very short.

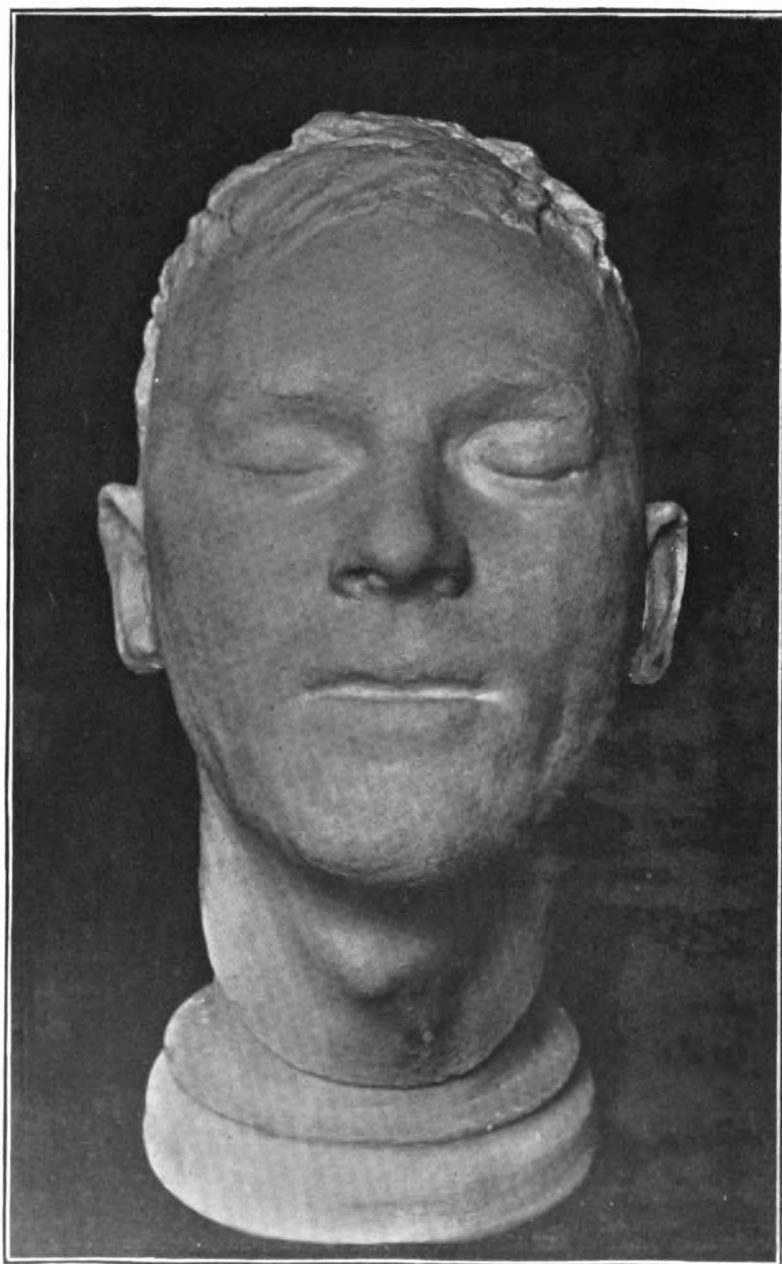
The central fissure was uninterrupted throughout its length,  
and was separated from the sylvian by a very narrow isthmus.



**LEON F. CZOLGOSZ.**

*Profile view of plaster cast.*





**LEON F. CZOLGOSZ.**

*Plaster Cast made immediately after death, by E. A. Spitzka. Mould of left ear was broken in transit; defect rectified in Photograph.*

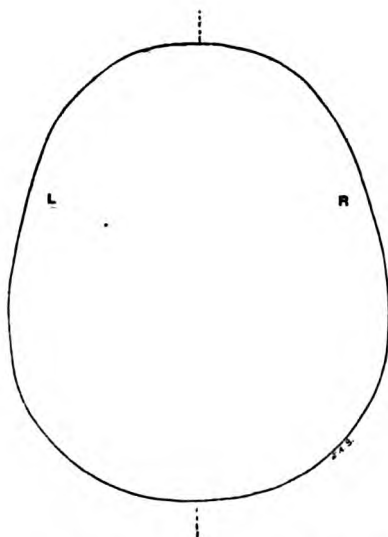


FIGURE 5.—HORIZONTAL OUTLINE OF THE HEAD (BY LEADSTRAP).

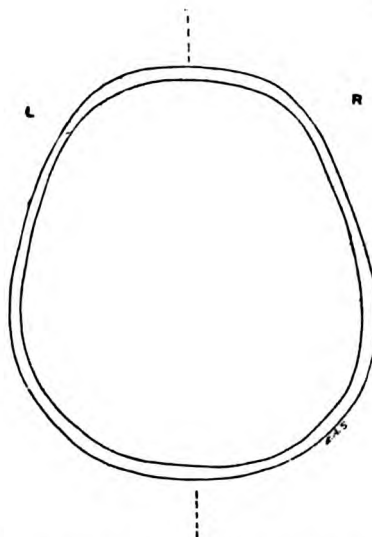


FIGURE 7.—OUTLINE DRAWING OF THE SKULL IN THE PLANE OF THE SAW-CUT DESCRIBED IN THE TEXT, SHOWING THE THICKNESS OF THE BONES.

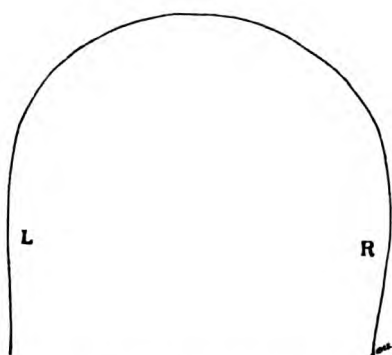


FIGURE 6.—OUTLINE OVER THE VERTEX, FROM EAR, TAKEN JUST IN FRONT OF THE ZYGOMAE.

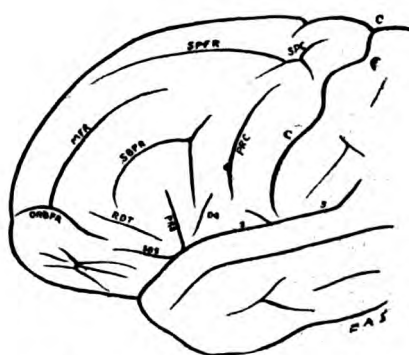


FIGURE 8.—DIAGRAMMATIC SKETCH, SHOWING DISPOSITION OF THE FISSURES AND GYRAL TIERS IN THE LEFT FRONTAL LOBE.

The supercentral fissure anastomosed with a long superfrontal fissure, but not with the precentral fissure.

The precentral fissure joined both the transprecentral and the diagonal, and by means of these the sylvian cleft. This fissure gave off an anterior precentral ramus from which sprang the caudal segment of the subfrontal fissure.

The superfrontal fissure was long and uninterrupted, extending nearly to the frontal pole. There was no true medifrontal present. The subfrontal fissure was in two segments, the caudal segment being confluent with the precentral by means of its ramus; the cephalic segment anastomosed with the orbito-frontal. Besides an independent radiate fissure, there were other unnamed fissures in the subfrontal region. There were two long sagittally directed orbital fissures; the mesial one of these communicated with the orbito-frontal.

As in the left half, the precentral gyrus was rather narrow as compared with the broader postcentral gyrus. The three frontal gyres were all of good width and were chiefly marked by transverse fissures.

The postcentral fissural complex was made up of two segments superficially confluent with each other. The dorsal segment was short. The ventral segment was longer, and was confluent with the parietal fissure. The parietal fissure was uninterrupted, deep, and separated from the paroccipital fissure by an isthmus. There was a well-marked postparoccipital fissure and one distinct transparietal.

The supertemporal fissure was long, uninterrupted, and not deeply confluent with any other fissure. There were four mediotemporal fissural segments. The intermedial joined the parietal. There was a fairly well-marked "lateral occipital" fissure.

The postcentral gyrus was fairly wide and flexuous. The parietal gyrus was wide, and exhibited the same cuneiform shape as described for the left side. Of the subparietal gyres the angular gyrus was of fair size, while the remainder of this territory showed only moderate development. The paroccipital gyrus was very small, but quite flush with the general surface of the brain.

The gyres of the temporal lobe showed very good development, and in the occipito-temporal transition the markings were quite complex.

On the mesial surface the supercallosal fissure consisted of two segments, and there was a similar duplication of the callosal gyrus (in its cephalic portion) as has been described in the left half. A notable peculiarity consisted in the confluence of the

inflected fissure with the paracentral stem, while the cephalic paracentral limb was separated from its stem, but was joined to the caudal end of the supercallosal. There was a tri-radiate intraparacentral fissure. The precuneal fissure would be independent but for a superficial junction with the paracentral.

The occipital fissure was deeply confluent with the calcarine. The postcalcarine was tri-radiate and separated from the calcarine by a "posterior cuneo-lingual" isthmus.

The superfrontal gyrus was fairly well marked by many transverse fissures, and by two long and distinct rostral (rostral and subrostral) fissures. The precuneus was large, a little larger than its fellow on the left side. The cuneus was as small as on the left half. The subcalcarine gyrus was of considerable width in its caudal portion.

The insula presented an ordinary degree of development, and, as on the left side, possessed six gyres, with seven peri-insular digitations.

THE CONSISTENCY OF THE BRAIN.—In cutting the brain the resistance to the knife suggested neither increased nor diminished consistency. The cut surface was moderately moist, the gray as well as the white matter was of normal color, the cortex was of the usual thickness, and there existed neither anæmia nor hyperæmia. No hemorrhages, sclerotic patches, neoplasms or other lesions were discoverable.

The basal ganglia, crura, cerebellum, pons and oblongata were all perfectly normal, there being an absence, so far as naked-eye examination could determine, of even the small hemorrhages in the floor of the fourth ventricle which have been usually found in electrocuted criminals.

The spinal cord was not examined.

THE THORAX AND ABDOMEN.—The blood that came out from the lips of the incision of the abdominal walls was dark in color and fluid. The pericardial sac contained from three to four fluid drachms of clear fluid. The heart was firm and had ceased in systole. The ventricles were empty; the heart walls, endocardium and valves were normal. Weight, eleven ounces. Both lungs were somewhat emphysematous, floating a trifle more than half out of water. They were moderately pigmented and of firm consistency. None of the bronchial lymph-nodes were enlarged. Except for a few bands of pleuritic adhesions of the right lower lobe, there were no lesions in either lung.

The intestines presented nothing unusual.

The pancreas was normal.

The liver was dark and hyperæmic, but healthy; there were no patches or other lesions, and the organ weighed sixty-one ounces.

The spleen was also hyperæmic and mottled, with light pink streaks, but the structure seemed to be normal. Weight,  $7\frac{3}{8}$  ounces.

The kidneys were markedly hyperæmic, but all the structures could be made out clearly, and they indicated the existence of a normal condition. The capsule was non-adherent in both kidneys.

The bladder was somewhat contracted and firm, and contained about three ounces of clear urine.

The results of the necropsy may be summed up by saying that Czolgosz was in excellent health at the time of his death. There was, of course, a marked condition of hyperæmia of all the viscera, and the blood was considerably altered, in that it remained fluid, undoubtedly due to the destruction of the fibrin-ferment, or of the fibrinogen, or both. These phenomena, such as the tetanized condition of the heart, have been observed by E. C. Spitzka, C. F. MacDonald, Van Gieson, and E. W. Holmes on criminals executed by lethal currents of electricity (2-3).

Describing the external appearances of the body, Murat Halstead says, in part: "The body was as white as marble, the face not at all distorted. One might say he was as if sleeping; the features were as if in a condition of repose." Whether his body invested a healthy mind is a question for discussion which it is not entirely in the writer's province to examine. So far as our knowledge of the correlation of brain structure and brain function extends, nothing has been found in the brain of this assassin that would lessen the enormity of his crime by the plea of mental disease due to intrinsic cerebral defect or distortion. The brain weight, although of itself unimportant, points to a good condition of the organ, when considered in its other relations; divested of its membranes, dissected, drained and after being immersed in a salt solution for several hours, its weight was 1,415 grammes—a trifle less than fifty ounces. This weight is a little over the average. Gietschenko records observations on the weight of 102 Polish brains, the average being, for males, 1,397.8 grammes, in cases of average statures of 168.12 ctm. The development of the fissures and gyres, from a morphological view-point, took place in the direction usual in ordinary average brains. There were no marked evidences of arrested development or of pithecoïdal anomalies. Generally speaking, this brain did not exhibit

that especial kind of asymmetry of gyral structure in the cerebral halves that is so characteristic of the brains of highly endowed individuals. There were many features in the one hemisphere that were reproduced almost exactly alike in the other. The few peculiarities encountered in the course of the fissures, such as the confluence of the left precentral, by its anterior ramus, with the superfrontal—across the medifrontal gyrus; or the separation of the right cephalic paracentral limb from its stem, while at the same time the inflected joins the paracentral (a feature found by the writer in 9 out of 160 hemispheres in which the inflected was present), are significant so far as individual brains are concerned, and will be discussed at length in a later contribution.

The skull was not symmetrical, but the asymmetry was slight and fully within the normal range of variation. An absolutely symmetrical skull probably does not exist.

It is a probable fact that certain classical aberrations from the normal standard of brain structure are commonly encountered in some criminals and degraded classes of society; and some workers who have attempted to found a school of degeneracy have endeavored to explain the manifestation of crime and other psychic abnormalities by the fact of "accidental persistence of lower types of human organization." But these structural anomalies, so far as they have been described in the brains of criminals, are too few and too insufficiently corroborated to warrant us in drawing conclusions from them. Various perversions or anomalies of mind may exist in this class without presenting a uniform criminal type from the anatomical aspect. Of course, it is far more difficult,—and it is impossible in some cases—to establish sanity upon the results of an examination of the brain, than it is to prove insanity. This difficulty is so much the more complex because some forms of psychoses have absolutely no ascertainable anatomical basis. The assumption has been made that these psychoses depend rather on circulatory and bio-chemical disturbances. So far as this question touches upon the brain and body of Czolgosz, there have been found absolutely none of those conditions of any of the viscera that could have been at the bottom of any mental derangement. Taking all in all, the verdict must be, "socially diseased and perverted, but not mentally diseased." The most horrible violations of human law can not always be condoned by the plea of insanity. "The wild beast slumbers in us all. It is not always necessary to invoke insanity to explain its awakening."

In conclusion, the writer wishes to express to Dr. Carlos F.



MacDonald his appreciation of and thanks for the exceptional opportunity afforded in the performance of this autopsy.

66 East 73d street, New York.

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#### NOTE BY AUTHOR.

The reader who may have happened to see an article entitled "Degeneracy and Political Assassination," by Eugene S. Talbot, M. D., D. D. S., in "Medicine," December, 1901, must be surprised to find that the citation—"It is admitted by E. A. Spitzka that the brain presented anomalies"—is directly contradicted here. This is one of those numerous instances that shows the desirability of medical writers awaiting the responsible publications of scientific results or conclusions, instead of giving newspaper canards currency, by incorporating them in their papers, and at the same time distorting facts to fit the theories they hold. The paper of Dr. Talbot presents such an endless vista of inaccuracy as to give ground for apprehension, that many other facts on which it rests were obtained in a similarly uncritical way and hence have misled that writer as unfortunately as in the Czolgosz matter.

The incorrect and misrepresenting citations were sufficiently trying without additional infliction in the way of an invidious implication, be it over so unintentional on Dr. Talbot's part,—but when the entire tone of the article in reference to the Czolgosz trial is critical anent its alleged "cooked and dried" character, and he intimates suppression of post-mortem evidence, it

sounds as if "it is admitted by E. A. Spitzka that the brain presented anomalies" indicated an unwilling admission and hence a partisan spirit. However, as the statement is altogether untrue, this feature needs no more consideration than "no microscopic examination worthy of the name was made."

We deserve at least this piece of justice, that we did not pretend to have done anything we did not do. Had we made a microscopic examination, it would have been our aim to have been more accurate in citation of collateral writers than Dr. Talbot has been or seems to have aimed at being. So how it can have been worthy or unworthy of any name, I cannot see.

Dr. Talbot, not familiar with the laws of New York State, commits another error when he says:

"The course of the court in refusing to accept his plea of guilty and forcing him to accept counsel is justifiable only on the ground of assumed insanity."

The laws of this State do not permit the plea of guilty in capital offences.

E. A. S.

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## ACUTE DELIRIUM

BY DRS. B. SEMIDALOW AND V. V. VEIDENGAMMER.

(Continued from Vol. 1, No. 3.)

*Case II.*—P. T. K. R., Pole, 31 years old; had a psychopathic family history; her sister suffers from periodic mental confusion. The patient was free from syphilis and alcoholism. She was highly religious, and emotional, but this is characteristic of her race. There was nothing else abnormal known about her; her favorite occupation was music. She had no serious physical ailments, with the exception of yearly attacks of facial erysipelas, this disease ran its course periodically, without even an elevation of the temperature. She had five children and sustained rupture of the perineum, which was followed by cystitis and *fluor albus*. The last child was born March 25, 1896, and she nursed the baby up to the day of the onset of her present ailment. She was devoted to her domestic duties, and often overworked. In June, 1896, she had the usual attack of erysipelas, and on recovering from it she did not feel as well as usual. On July 3 she played with her children as usual, but towards evening her temperature was  $38.5^{\circ}$  C., and during the following days it was still higher, reaching  $39.5^{\circ}$  C., and with the exception of one day, July 6, when it fell to  $37.5^{\circ}$ . Up to this date, she showed no psychic derangement, but on the morning of this day, the patient imagined that she had the small-pox, and sent for a physician. During the day she became exalted, and toward evening she was quite excited, writing continually and expressing incoherent thoughts. She interpreted the events of the day in a mystic manner, saying that everything was a revelation to her, and she made out a will in her husband's favor. She then became still more excited and gravely incoherent in thought. She called out to everybody she was going to save the world, and to preach; she sang hymns and shrieked. The night was passed without any rest or sleep, the patient striking those near her and asserting that the evil spirit worked in her. In the incoherency of her speech could be discerned a mixture of recent and most remote events. On the following day, she refused to swallow either food or medicine. The face was constantly grimacing, and she resisted every endeavor to keep her in bed. The following night was also characterized by insomnia. She was brought to the hospital on the day after, and she seemed to then recognize her surroundings, as she had visited the wards previously. During her four days' stay, the pupils were unequal in size, the knee reflexes were diminished and there were marked vaso-motor disturbances, characterized by either marked redness or pallor of the face. The tongue was coated, the lips were parched and the temperature varied between

37.3° and 38.4° C. during the first three days, and on the fourth day, July 11, it suddenly rose to 39.5° C. The pulse was rapid during the entire period. She was too restless to permit of a physical examination, the speech was incomprehensible, the mouth was foaming, she refused to swallow liquids, food or medicine, and there was complete insomnia throughout the course of the disease, which ended in death on the fourth day, suddenly and unexpectedly.

**AUTOPSY.**—The shape of the head is dolichocephalic. The back of the head is flat and on the flat plane were symmetrically situated two round openings, through which the head of a probe could be passed. The diploe was poorly developed, the dura mater was adherent to the skull cap and injected with blood, the sinuses and arteries were distended with blood. The pia mater was hyperæmic and œdematous. The basal vessels and the arteries in the Sylvian fissures were normal. The gray and the white cerebral substances were both injected with blood, the gray matter especially so. The lateral ventricles contained some serous fluid of light color, and in the left fourth ventricle there was an œdematous effusion. There was nothing of note otherwise in the cerebro-spinal axis. The viscera presented some pathological changes, showing hyperæmia here and there, the heart muscle was flabby, brittle and infiltrated with fat, and the bicuspid valve was slightly thickened. The pericardium contained about a tablespoonful of serous fluid. The left lung was the seat of acute emphysema in the upper lobe and of œdema and hypostatic congestion in its lower part; the right lung presented, in its upper part, punctiform sub-pleural hemorrhages and acute emphysematous changes; the lower part showed œdema and hypostatic congestion. The spleen was larger than normal, brittle and full of blood. The liver was also larger than usual, and brittle. The kidneys were normal and the capsules easily detached. Most of the mucous lining of the viscera was congested.

The rapid course of this disease excluded all other diagnoses and pointed clearly to acute delirium. The profound mental confusion, the incessant hallucinations, the unceasing muscular restlessness and insomnia, the inequality of the pupils, and the lowered tendon reflexes, all pointed to the existence of a grave organo-psychic disease,—acute delirium.

The third case, as was mentioned above, was one of general paralysis, the closing phase of which was acute delirium.

*Case III.*—T. B., 37 years old, entered the hospital February 4, 1897. She suffered from syphilis seven years before admission, and had some abortions. She was free from alcoholism. In

January, 1897, she became depressed, refused to speak, was unclearly and did not seem to appreciate her surroundings. On admission, the examination showed that she was free from signs of degeneracy, the pupils were unequal and reacted feebly to light; the tongue trembled when put out, the speech was slow and lazy; the memory was impaired and she was unable to give an account of her ailment. Her movements were slow; when at table she ate slowly; when in bed she remained motionless. She remained in this condition to the end of May, varying in degree from profound stupor to some lighter form of depression. In June, she seemed to have improved, became more animated, talked, ate, worked some, and about the end of that month she was considerably improved, in an almost normal condition, excepting some persisting general laziness. She left the hospital June 29 and was obliged to return November 11. She was then again in a depressed condition, the pupils were small and did not react to light, the temperature was  $37.7^{\circ}$  C., the speech was markedly paralytic, and the tongue and lips and hands trembled; the knee reflexes were absent. On the following day she woke up feeling well; she was satisfied with all about her and talked incessantly. This excitation increased towards evening, and she became incoherent. The night was spent in insomnia, and she became still more excited towards morning, jumping out of bed, tearing the sheeting, and the nurses' clothes. She shrieked as if terror-stricken by hallucinations. She remained in this condition during a period of some 48 hours, then she improved and seemed to recognize those about her; she spent a comparatively quiet night, but towards morning she became excited again. It was difficult to keep her in bed, and she tore the clothes and shrieked in terror, as before. This lasted 48 hours again, and then she quieted down from exhaustion, for some hours. At the end of that time, the excitement was again at its height. She remained in the latter condition until December 1; the motor excitement was of a cortical nature. When she became quiet for a short while it was evidently exhaustion that governed the condition. She soon refused to swallow food, and artificial feeding was resorted to. She became emaciated, the eyes were sunken, the lips parched, the tongue heavily coated, the breath fetid, and generalized sub-cutaneous hemorrhages took place in the region of the shoulder blades, legs, wrists and soles of the feet. In the course of  $2\frac{1}{2}$  months she lost 40 pounds in weight. She never rested longer than from 2 to 4 hours in the 24. The temperature was of a feverish nature all along and irregular, ranging from  $36$  to  $38.5^{\circ}$  C. She finally became exhausted, and unable to sit up in bed; she continued speaking uninterruptedly and incomprehensibly,—in

a whisper now,—and the muscular restlessness still kept up, as did the facial spasms. The pulse finally became slow,—40 per minute,—and the patient died in a comatose condition, December 3.

**AUTOPSY.**—The skull bones were thick, the diploe well developed and full of blood. The dura mater was thickened and covered a slight sub-dural œdema. The pia mater was considerably swollen, hyperæmic, darkened and thickened along the course of the vessels in the region of the frontal, central and temporal convolutions, where it was also adherent; the thickening was also marked in the base of the brain, over the optic thalamus; in the cerebellum the pia was also thickened, at its base and in the posterior part. Arterial sclerosis was marked in the Sylvian fissure. The convolutions were slightly flattened. The cerebral cortex was not uniform in thickness; it was pale and thin, especially in the frontal lobes. The right hemisphere showed the changes more distinctly. The lateral ventricles were distended with serous fluid, the ependyma was thickened and, finally, there was ependymitis of the fourth ventricle.

Among the changes of the other organs were noted: pulmonary emphysema with venous hyperæmia of the lower lobes; fatty degeneration of the heart, chronic endocarditis, chronic interstitial nephritis, etc.

**MICROSCOPICALLY.**—The pia mater was thickened and its vessels injected; there was a profuse infiltration with round cells, especially around the blood vessels; the vascular walls, particularly those of the veins, were infiltrated with lymphoid elements. The infiltration impinged upon the surface of the cortex here and there, and hemorrhages were scattered in various regions. In the peripheral layers of the cortex was an abundant proliferation of spider-cells. Throughout the thickness of the gray matter were found numerous oblong, irregular nuclei; the same is true of the neuroglia nucleus proliferation. All the vessels, including the small capillaries in the thickness of the cortex, were considerably distended, the walls were thickened and there were numerous nuclei scattered about the walls. In the perivascular spaces were seen granulations and pigmentary deposits.

The cerebral structure presented changes identical with those found in the first case: cortical œdema, local vascular distention with blood, extravasations, lymphoid infiltrations of the vascular walls, and in the perivascular spaces, marked acute changes of the cerebral cells. The spinal cord also presented both chronic and acute changes. The chronic cerebral changes are characteristic of chronic periencephalitis, while the acute ones are indicative of acute hemorrhagic encephalitis.



It is admissible to suppose that in this case an acute cerebral affection was superadded to the already existing chronic encephalitis.

As acute delirium always shows microscopically characteristic cerebral changes, the disease must be considered as an individual one. The nature of the inflammatory cortical changes is always hemorrhagic. For this reason, acute delirium should be classed in the larger group of hemorrhagic encephalitis, of Strümpell and Wernicke, but of a specific, almost exclusive cortical localization of the process. It is needless to state that the various degrees of the forms of these diseases may merge together and complicate the clinical course. There is much analogy between the course of acute delirium and acute hemorrhagic encephalitis, the duration being short in both cases, although a sub-acute course, or recovery even, is possible, as in the case of Fürstner.

Both infection and intoxication may be the cause of acute delirium. Acute delirium differs little from other forms of acute hemorrhagic encephalitis, from the standpoint of its etiology, course anatomical changes or termination. For this reason, acute delirium may be considered as belonging to the large group of hemorrhagic encephalitis, with the distinctive trait of almost exclusively cortical localization. It may therefore be anatomically called Meningo-poliencephalitis corticalis acuta hæmorrhagica. (*Voprossi Nervno-Psichitcheskoï Medicini, Tom V.*)

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## ON THE FREQUENCY AND SIGNIFICANCE OF TRANSVERSE STRIAE OF THE FINGER NAILS IN THE NORMAL, THE CRIM- INAL, AND THE INSANE SUBJECTS.\*

BY DR. MARCO TREVES.

In a communication reported elsewhere, (1) I brought to light the clinical phenomenon of the appearance of transverse striae of the finger nails of the insane. The occurrence can be explained by the hypothesis of an alternating histogenic activity depending on the causes which bring about frequent variations of psychomotor activity. Although the insane present this phenomenon to the highest degree, they are not the only ones who suffer from such changes; (2), subjects free from psychopathic disturbances, but suffering from other morbid affections, especially those of long duration, characterized by periods of amelioration and remission, are equally apt to manifest the same phenomenon. It must be admitted that in the latter cases, the regularity of periodic regeneration is less marked than it is in cases of mental disturbances. The fact may sometimes be observed in normal subjects; in such cases it is always found that some morbid disturbance has taken place during the period of regeneration of the finger nail. This fact should be born in mind in medico-legal cases where disease is brought in as a plea.

The toe nails are also the seat of these morbid changes; although the latter may co-exist on the finger and toe nails, an independent manifestation of the striae on the finger or toe nails is not an exception.

Another point of interest is the fact that the transverse striae are more marked on the thumb than on the fingers; besides, the striae are, as a rule, on the same level on all the fingers, but in some cases this uniformity of level is absent.

In order to find the cause of this variation of level I studied the growth of the nails throughout the period of regeneration. A mark

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\* Simultaneous publication in the United States and in Italy.—Ed.

(1) Marco Treves.—Intorno al fenomeno della striature, etc., *Giornale d. R. A. di Med. di Torino*, 1900.

(2) Langdon Down and Wilks, *Path. S. Trans.*, v. xxi and Wagstgge, *St. Thom. Hosp. Rep.*, v. xviii.

was made on the nail with nitrate of silver, near its root. This black stain persisted almost indefinitely and enabled me to watch the growth of the nail from its root to the free border.

The following are some of the results which I observed in connection with this study:

The time of the regeneration of the finger nails varies with the individual nail (cause of the difference of level of the striae).

The toe nail requires more time for regeneration than the other nails (cause of more structural evidences in this nail).

Regardless of the conspicuous difference of surface of the toe nails, they all require about an equal period of time for regeneration.

The time required for the regeneration of the toe nail is from 3 to 6 times longer than that necessary for the finger nail.\*

In view of the different length of the period of regeneration of the toe and finger nails, the first requiring from 8 to 24 months, and the latter from 2 to 7 months, the finger nails serve as a better index to recent morbid occurrences. It is permissible to conclude that transverse striae of the toe nails indicate organic perturbances of long duration, while those of the finger nails are rather indices of disturbances of short duration.

The number, position and depth of the striae indicate, to some degree, the number, times and duration of the perturbances.

In the accompanying table is shown the clinical appearance of the striae, and the table shows their frequency in the normal, criminal and insane subjects.\*\*

Although the table shows a marked difference of percentages expressing the frequency of occurrence of the nail striae, it would be wrong to attach too much importance to those figures; as the phenomenon is expressive of an impaired equilibrium in the complex organic function, it can hardly be asserted that the nail changes are peculiar to any particular disease.

The periodic diseases, naturally, furnish the highest percentage, and, consequently, are less convenient for study than the other cases. The noteworthy points are:

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\*The length of time required for the toe nail regeneration is quite remarkable; in one insane case in whom the toe nail was marked near its root July 6th, 1899, the trace still remains near the free border (July, 1901).

\*\* The normal subjects were chosen from among the medical and law students and some eighty soldiers also enter into this group; the female subjects were chosen among school girls between 10 and 15 years of age and working women between 15 and 45 years old; the criminals were studied in the Turin prison and the insane were examined in the asylums (Turin, Collegno).

The great frequency of the occurrence of this phenomenon in the criminals and the insane (almost 50 per cent).

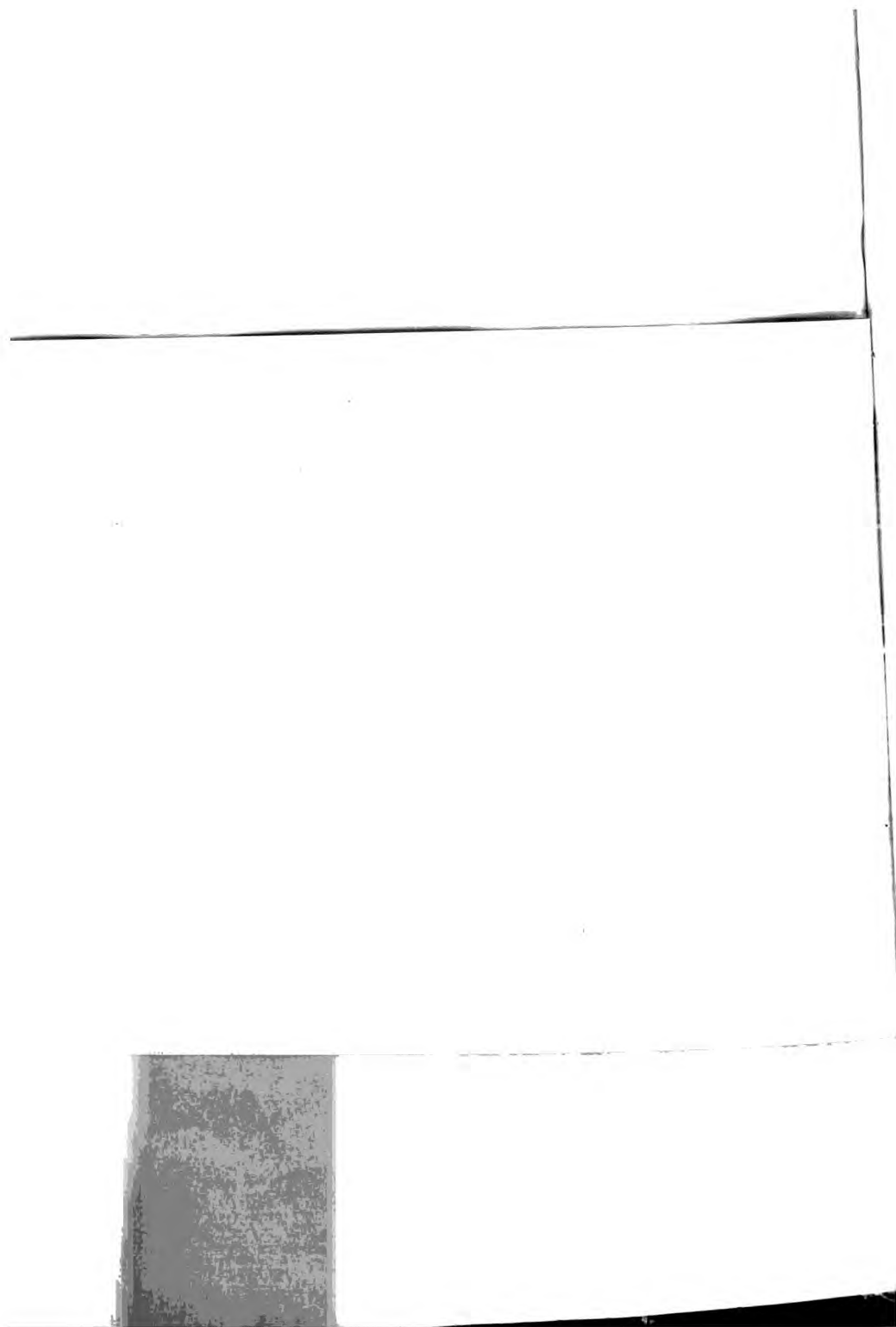
The almost equal percentage found in the criminals and the insane.

The great frequency of this phenomenon in neurasthenia and psychoses of degenerative origin.

Normal subjects who present this phenomenon generally suffer from some morbid accidents during the period of the nail regen-



9 circular insanity .....	77.7
56 mania .....	59.
88 melancholia .....	44.2
55 peranoia .....	45.5
8 puerp. insanity .....	62.5
4 sensory insanity .....	50.



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Normal subjects who present this phenomenon generally suffer from some morbid accidents during the period of the nail regeneration.

It may be stated, in general, that the neurasthenic, insane and criminals are more susceptible to pathological changes, as their resistive powers to unpropitious surroundings and circumstances are minimum; this explains, perhaps, the frequency of occurrence of the above-mentioned phenomenon in this class of cases.

Indextable showing the frequency of the transverse striae of the nails in the normal, insane and criminal subjects:

## MEN.

No. of Subjects.	Per Cent.
160 normal .....	16.
68 criminal .....	51.7
31 idiots, cret., imb. ....	48.3
5 moral insane .....	40.
3 circular insane .....	66.6
38 mania .....	47.3
43 melancholia .....	36.6
51 peranoia .....	27.3
30 alcoholism .....	50.
48 epilepsy .....	53.8
20 general paralysis .....	40.
38 second. dem. ....	60.4

## WOMEN.

50 normal .....	12.
41 criminal .....	42.8
53 puel. publ. ....	48.2
27 idiots imb., cretin. ....	37.
9 circular insanity .....	77.7
56 mania .....	59.
88 melancholia .....	44.2
55 peranoia .....	45.5
8 puerp. insanity .....	62.5
4 sensory insanity .....	50.



9 hysteria .....	22.2
16 general paralysis .....	50.
86 secondary dementia .....	48.2

## AVERAGE PER CENT.

210 normal .....	10.4
109 criminal .....	46.
53 puel. publ. ....	47.3
58 idiots, imbec. cret. ....	43.1
6 moral insane .....	50.
12 circular insanity .....	75.
94 mania .....	54.2
131 melancholia .....	41.2
11 paranoia .....	35.1
8 puerperal insanities.....	62.5
4 sensory insanity .....	50.
31 alcoholism .....	51.6
9 hysteria .....	22.2
84 epilepsy .....	50.
36 general paralysis.....	44.4
124 second. dem.....	52.

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## A CLINICAL STUDY OF MORBID OBSESSIONS AND IMPULSES.

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Gentlemen,—I have the honor to present to you five cases of mental degeneracy with obsessions and impulses, which I collected in Dr. Magnan's wards, at the Admission Bureau, Ste. Anne.

Clinically, these may be divided into three groups:

First—Simple Episodic Syndroms.

Second—Episodic Syndroms with melancholy depression and Alcoholic Onset.

Third—Episodic Syndroms with Epilepsy.

Case I.—*Mental degeneracy.—Physical stigmata.—Absence of the moral sense.—Criminal attempt on his sister.—Antivivisectionist.—Zoophilic.*

Marcell M. is ten years old. The information regarding his antecedents is incomplete. The patient's mother is very emotional and suffers from nervous spells. The confinement took place at full term, but by the aid of forceps, which had to be applied five times. The child weighed twelve French pounds; he had some superficial bruises on the head, and an hour passed before he gave the first cry. Of precocious intelligence, Marcell M. received a primary education with ease. He has always been impressionable, irritable and excessively jealous, desiring to be the principal subject of all attention. He often beat his comrades, taking pleasure in their suffering. On the other hand, he was very gentle with animals, which he liked very much. He declared that "the world was nothing; the animals were all that was interesting."

His mother, not wishing to anger him, tolerated his morbid tendencies and allowed him to keep various animals; this made him happy and so jealous that when his little sister went near his favorite he beat her. This love for animals grew with the age of the little patient. At the age of seven and one-half years he began collecting cats, toads, frogs, snakes, tortoises, etc. In 1896, this liking for animals grew to such a degree that one day, on seeing his sister touch one of his pets, he threw himself on her,

grabbed her by the arm and pulled her towards a burning stove upon which he wished to throw her; this was done in the presence of both parents. After this paroxysmal attack, M. was committed to the Vaucluse Colony, where he remained fifteen days. His parents insisted on his release, and he was given his liberty. During the following three months he was very nervous, fearing a renewed commitment to an asylum. During that time, he manifested his zoophilic tendencies less than usual. As time went on, however, and he began to feel more reassured, the old tendency appeared in its true light. He picked up every stray animal that came to his notice, and cared for it at home. The slightest neglect of an animal was to him "cruelty," and he often assaulted the children in the neighborhood in order to "avenge the animals."

"The first animal I had was a beautiful gray cat," he says; he also had a frog which he loved "like honey," and although he detested music, he made use of a flute to charm with it a snake which he "adored."

"The animals are just as good as we are and have as much affection as we have," he says. Although but a child, he makes use of well known aphorisms: "There is no perfection in this world. I have defects as well as qualities." This child, ten years old, wished to become a member of the Society for the Prevention of Cruelty to Animals. He often went to the Jardin d'Acclimation, and if, by accident, he was prevented from seeing his favorites, the incident made him ill. His conduct towards the neighbors became unbearable and they sent anonymous letters to the Préfecture de Police, demanding his sequestration.

He was brought to the Admission Bureau at Sainte-Anne for the second time, in May, 1897. M. presents a very marked cranial malformation and congenital nystagmus; he surprises at first sight by his great elocutionary facility, speaking without reflecting, yet having at full command the words he wishes to use; his language sometimes resembles that of a child sixteen years old. "I wished to burn my sister," he says, "yet I have a kind heart for the poor animals." He is suffering considerably because he has been deprived of his pets, and begs of me to bring him "any animal." He likes them all, "for they suffer as we do, have a language as we do, and merit our love."

When I reason with him, saying that his love for animals is exaggerated, he answers: "I bow before the physician's judgment; if she says that one should not love animals I shall get along without them."

And, indeed, regardless of his unbalanced equilibrium, the little patient succeeds in triumphing, in the asylum, over his morbid

passion, and is beginning to accustom himself to a more normal life.

The following case shows more distinctly the moral influence of the physician over his patient.

Case II.—*Mental degeneracy.—Nervous and insane heredity.—Melancholic depression.—Episodic syndroms.—Obsessions and impulses.*

Georges G., 27 years old, entered the Admission Bureau of Sainte-Anne March 16, 1897. He has a marked insane and nervous heredity. His maternal grandmother died at Sainte-Anne in 1893; a paternal uncle also died insane; this uncle's son was an inmate first at Sainte-Anne and later at Bicêtre. He was an epileptic; after the attacks he stole whatever he could; and when in his normal state he had a habitual tendency to steal. The patient's father was an alcoholic, and died of tuberculosis. The mother is fastidious, queer, very emotional and easily angered.

George G. has been of quick temper, emotional and depressed since he was ten years old. He was subject to nervous spells, laughing and crying without cause, and always remaining depressed after the involuntary laughter. He attended school, but has not learned much; he did not like intellectual work, and still less did he care for manual labor. An attempt was made to place him out as an apprentice after he had left school, but he stayed away from the workshop half of the time; he remained home, shut himself up in his room, not saying a word to anybody, remaining alone the whole day, depressed, pensive or else reading novels.

In 1894 he manifested a series of nervous phenomena as strange in their nature as they were odd in their form.

First, he began to manifest disturbances of gait: he could not lift his feet to take steps, imagining that he was "nailed" to the ground. He was aware that he was only imagining this, yet the obsession persisted just the same. At the same time the sight of everything fatigued him, and he shut his eyes often so as not to see anything. No sooner was he rid of these first obsessions than he became victim of another: on looking at a picture, for instance, his attention was drawn by one particular detail which in itself had neither importance nor significance; but he could not tear himself away from that point until forced to stop looking at it, because of exhaustion. On the disappearance of this obsession, another one made its appearance: everything that he ate had an exaggerated taste and enervated him. Another obsession followed this one: every noise excited him, especially the noise produced by the opening or shutting of a door; "this made me

be beside myself," he says (*cela me mettait hors de moi-même*); his attention was always directed towards the door, and he listened to the noise which made him feel beside himself. Then, everything became the subject of an obsession; noises, music, pictures, reading; everything that required his attention tired him. At about 1896 he also became subject to *folie du doute*. When he read something he doubted whether he had understood it. While putting on his trousers he would stop, take them off and put them on again, fearing that they were not put on properly in the first place; he would button his vest half way, then take it off only to put it on again and rebutton it; this was repeated several times in succession. These doubts have persisted up to this date; "I fear that I shall never succeed in putting on my things," he says.

Six months before his admission the patient felt impelled to hold on to anything near at hand. When near any object he began to squeeze it. Before doing this, while endeavoring to resist this impulse, he experienced a feeling of oppression about his heart, as well as that of anguish, which disappeared after the impulse had become a deed.

This impulse, which made its appearance at rare intervals at first, incapacitated him for work in the end, by reason of its frequent repetition. This impulse is G.'s present complaint.

As soon as he notices any object, he holds on to it with all his strength: if he is writing, he squeezes the penholder until exhaustion forces him to relax his hold; when near a door, he squeezes the door knob. Once he found himself near his mother and put a firm grip on her skirts. In March, 1897, G— was alone in his room, and wished to go out on the street. He went to the door, but feared to touch the knob; instantly, however, he caught the knob with all his strength and held on to it until he fell on the floor, exhausted. He still wished to go out, however; fearing to touch the fatal knob again he kicked the door panels out with his feet and got out through the opening into the adjoining room; here he again broke through the panel of a door, did the same thing in a third adjoining room, and finally went out of the house.

Thus, we see in this degenerate queer and mobile episodic syndroms appear and disappear under various forms and for various durations.

The patient presents physical stigmata of degeneracy,—notably, facial asymmetry; his attitude is semi-melancholic, and he speaks in a low tone of voice.

When I spoke to him and explained that his impulse was a disease, an "imaginary" necessity for those acts, and that he could

rid himself of it by sheer will power, he listened sadly and sceptically. I insisted and asked him to touch any object, but with the resolution to release it in a normal manner, without squeezing it. He tried, but without success. I repeated the séances during some weeks, and finally succeeded, at frequent intervals, when insisting with firmness and conviction, in making the patient do what I wished; but he added, with an expression of despair: "It would be necessary, then, that I should always have a physician about me."

The possibility of making a "syndromic" act in a normal manner is a clinical fact that the physician should not lose sight of. For, there are patients with dangerous impulses, as the suicidal and homicidal impulses, on whom all possible influence should be brought into play to ameliorate their condition. And when clinical facts teach us the possibility of influencing these patients by reasoning, or any other means, the physician should exploit them for the patient's benefit.

In the following case will be seen the happy results obtained from moral and therapeutic treatment of episodic syndroms of exceeding grave form.

Case III.—*Mental degeneracy.—Episodic syndroms.—Homicidal and Suicidal impulses.—Melancholic depression.—Suicidal attempt secondary upon the homicidal impulses.—Various obsessions and impulsess to steal, to swallow needles and pins, doubts, etc.*

Mlle. Marianne Le G., twenty-nine years old, domestic, entered the Admission Bureau of Sainte-Anne, January 30, 1899. The information regarding her antecedents is incomplete. Her father was a horse dealer, and drank considerably; he died at an advanced age. There is nothing of note about the mental condition of the relatives on the father's side. The mother is forty-nine years old, and is in good condition. The maternal grandfather was a drunkard. One of the patient's brothers, thirty-six years old, is nervous; another brother, thirty-one years old, is healthy.

The patient presented nothing abnormal during childhood; she learned easily at school, and was always of a gay disposition. The present malady seems to date from December, 1891. At that time she was cook for a family in Paris. She had an attack of influenza, which lasted a week; but during the convalescence she suffered from marked *ennui*, an undefined and melancholic depression out of proportion with an affection of such short duration. The mental depression was accompanied by a sensation of a weight upon the brain and in both temples.



While suffering from these cerebral disturbances, she was, one day, peeling vegetables in company with her mistress's child, when she suddenly experienced a desire to kill the child. "It was an acute desire that I cannot explain to you," she says; "there was a sensation of squeezing about the heart; I felt a sensation of anguish, I suffocated, so strong was my desire to take hold of the sharpest knife and to cut the flesh of this child whom I loved."

She sent the child out of the kitchen and the homicidal impulse disappeared. The child's parents and the adults in general, left her indifferent in the beginning. "But when I saw that child, over whom I had authority," she says, "the desire to kill her was stronger than my will (*plus fort que moi*): the sharper the instrument was the more intense was the desire to cut into the living flesh."

She struggled against this impulse for months. She soon noticed that her disease was not limited to one impulse. Thus, while preparing meals she was taken with an intense desire to put poison into them, "in order to kill no matter whom, as well as myself," she says. About July she had an impulse to swallow gas, and was surprised by her mistress.

She left her place in July, 1892, and went to live with her family in Brittany. There she had to sleep with her mother. "Every time I found myself by her side," the patient says, "I felt such an acute desire to kill her that I decided to leave the house at the earliest moment." But she did not dare confide her torments to her mother. One night, while in bed with her mother, Marianne was taken, suddenly, by an irresistible impulse to kill her. "This miserable thought had such a power over me that I am still asking myself how I succeeded in leaving the bed in time. Had I once laid my hands upon her throat, no restraint could have averted my accomplishing the fatal act. Is it not terrible," she adds, "to have such ideas against my mother, whom I love?" She left her mother in November, 1892, and returned to Paris. She engaged herself in the service of a family where there were two children: a boy, two and one-half years old, and a girl, seven years of age. No sooner did she find herself alone with the children than she was taken by the desire to kill them. Then, disgusted with such a life as hers, she decided to asphyxiate herself. "Fearing that I should commit a crime, I preferred to take my own life; I was glad to die," she says. At night, before going to bed, she prepared a grate with live charcoal, and put it by her bed. In the morning she was found semi-asphyxiated, unconscious and one foot burnt. She was taken to the Hôtel-Dieu (August, 1893), where she remained three months. During that entire period, ex-

cepting the first two or three weeks, she hardly had any homicidal or suicidal impulses. "The physicians and the nurses had authority over me, and this prevented me from wishing to do them harm," she says. But no sooner did she return to her relatives in the city than she was again taken with homicidal impulses, intended, this time, against one of her youngest friends. She went to be treated at the Salpêtrière, and remained there three months. There the impulses faded with time, thanks to a bromide treatment, and hydrotherapy, as well as the daily moral treatment. "The thoughts were not quite so strong in the Salpêtrière, because I did not see any sharp instruments," she says. But she felt impelled to swallow needles and pins which she handled in her sewing. "It was a frightful struggle in resisting the desire to swallow the needles and pins," she says. Finally, after the third year of treatment, she left sufficiently improved, as she could touch sharp as well as pointed instruments without experiencing either homicidal or suicidal impulses.

On leaving the Salpêtrière, in August, 1896, she went to live with her brother, in Libourne (Gironde). She remained there three months without having any impulses; but one day, while working in the kitchen, while her nephew, whom she loved, was coming toward her, she was taken suddenly with the desire to stick a knife into his breast, limbs, or anywhere in his "flesh," she says. She left for Brittany in 1897, but as she again found herself with her mother, the patient was obliged to leave soon: the impulse to kill returned again. She came back to Paris, and in August, 1898, she engaged herself in a family of two old ladies, "whom I dominated, more or less," she adds. "When I saw them it was terrible; I stayed there eight days, and it was like eight days in hell (*c' était comme huit jours d'enfer*); when I looked at them, my impulse to kill them was so strong that I left their house at the end of the week." She then accepted a place where the mistress of the house was about to be confined. "The day I learned that news," she says, "I left. I already had the desire to kill the child not yet born." The sight of cradle children excited in her particularly a strong homicidal impulse, "because I had full authority over them," she explains.

During the term between October and December, 1898, she went for treatment to Saint-Antoine, taking shower baths and bromide; as she felt improved, she placed herself as cook in the college Albert-le-Grand, in Arcueil. There, again, the sight of sharp instruments excited impulses, and finally, the patient, losing hope, came back to Paris to cause her own arrest; "to be locked up in a safe place," she says.

During the course of this morbid state, Mlle. L. G. presented at different times, besides the homicidal and suicidal impulses, a whole series of other obsessions and impulses; doubt, fear of touch, kleptomania, pyromania, onomatomania, impulses to throw boiling water on passers-by, to embrace a man whom she hardly knew, etc.

During the first few days of her stay at Sainte-Anne, the patient was quite depressed, prey to her homicidal and suicidal impulses: "As soon as I see sharp instruments I am drawn towards them; it is something incredible," she says. She was kept away from the kitchen for some time, every object apt to excite an impulsive attack was hidden from her and she was reasoned with. Little by little she became calmer. She could handle a knife and cut the meat for other patients without having a sensation of anguish. In May, she was considerably improved. "I can cut with an asylum knife," she says; "it leaves me indifferent, but I do not know as to well sharpened instruments, especially if I found myself in the presence of a person who had no authority over me."

Patients do not always present themselves under this simple form. Sometimes the episodic syndroms are interwoven with other mental morbid manifestations.<sup>1</sup>

This will be shown in the following case.

*Case IV.—Mental degeneracy.—Auditory hallucinations at twenty years of age.—Episodic syndroms.—Suicidal obsessions and impulses.—Period of melancholic depression with suicidal tendency.—Alcoholic delirium added to the episodic syndroms and the melancholic state.—He wishes to kill himself because he has suicidal impulses.*

Henri D., twenty-eight years of age, entered the Admission Bureau of Sainte-Anne for the second time, May 17, 1897. His mother, who died of tuberculosis when twenty-seven years old, made several attempts at suicide during her illness. The patient's father was a shoemaker. He was a drunkard, and beat his wife and children. One day he walked, bare-foot, in the snow, a distance of a mile, without any reason for doing so. After this walk he was taken ill with pleurisy, from which he died. The paternal grandfather hanged himself; he was not alcoholic; a paternal uncle, also non-alcoholic, died insane. A paternal aunt is a melancholiac; the patient's sister is nervous.

Since childhood, Henri D. has always been sombre of disposition; he never had comrades among the children of his own age.

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(1) Magnan, Rech. Sur les centres nerveux. 2e Série, 1893. De la co-existence de plusieurs délires de nature différente chez le même aliéné.

At about the age of fifteen he became depressed. "I cried almost all the time," he says. At that time his obsessions and impulses began. It often happened that he inflicted razor cuts on himself while attending to his clients. (D. was a barber). "Every time I had the razor in my hand, an irresistible force pushed me to inflict cuts on myself with that instrument; if I resisted I experienced a sensation of anguish I cannot explain to you. I had a sensation of squeezing about the heart; I suffocated; nothing could have satisfied me excepting the act of cutting myself with the razor," he says.

One day, while shaving his client, he felt impelled to cut his own hand. He stopped in his work, hesitated, struggled against this obsessional idea, but failed in the attempt, and inflicted a slight wound on himself. The client ran away frightened.

In the midst of these conscious impulses, D. was a prey to another spell, of delusional nature, although a transitory one; he was then twenty years old. Of a sudden, he heard a voice telling him to end his life. He ran for the matches in his room with the intention of poisoning himself with them; he succeeded in resisting, however. But his principal disease consists of conscious suicidal impulses. In September, 1893, while shaving a client, the patient cut his own throat with a razor. When brought to the Admission Bureau Sainte-Anne, he explained: "When I have the razor in my hands I am as one fascinated, and I feel pushed to inflict cuts on myself." Transferred to Vacluse, he made there five impulsive suicidal attempts. On leaving the asylum in March, 1894, he took up his work as hair-dresser and soon inflicted on himself cuts on the forehead, in the presence of a customer. In May, 1894, he caught hold of a pair of scissors, which were lying on a table, and plunged their points into his own breast, in the precordial region. About that time D., who was then indulging in alcoholic excesses, became subject to melancholia with suicidal tendencies. He wished to kill himself because he had suicidal impulses. "It was not a natural life," he says. He tried diversion by leaving Paris and going to Tours, changed from employer to employer, but with no good results; he then decided to kill himself. He considered the matter during a fortnight, elaborating the details of his death. He wished to end his life in Paris, near the Bastille; he wished to throw himself into the Seine from the Bridge Austerlitz. He returned to Paris and came to the chosen bridge at night, but two policemen there interfered with the execution of his plan. Some time after this, he placed himself in a hair-dressing establishment; but two months after his advent there, during which time he had no impulses, he

inflicted on himself two cuts upon the throat. He was sent away. In June, 1896, while shaving a patient in an establishment on the Boulevard de La Tour-Maubourg, he again cut his own throat with a razor. In January, 1897, tired of such an existence, he indulged in alcoholic drinks, and suffered from alcoholic delirium. When brought to the Infirmerie du Dépôt, he had painful visual hallucinations. He saw men carrying ropes to hang him; he was at the edge of precipices, bridges, rivers; he walked on parapets of a bridge and was falling in the air. When transferred to Sainte-Anne, his delirium continued. He saw cut-off heads bleeding from the stump and hanging in the air, before him; miniature men danced upon his face; he was followed, accused of having committed a crime; he was to be arrested. He also imagined that his brother was burned in the fire of the Bazar de la Charité (which took place on May 4, 1897). Even during the alcoholic delirium he said: "It is not during drunkenness that I will take my life; it is during my clearest soberness."

Some time after his admission he recognized that his fears were imaginary, but the suicidal impulses persisted.

Case V.—*Epilepsy and mental degeneracy.—Episodic syndroms; obsessions and impulses.—Unconscious acts after the epileptic attacks.—Alcoholic delirium.*

B. A. P., born in Paris, is forty-four years old. His father, seventy-five years old, is an alcoholic. He is an inmate of the Bicêtre Asylum. The patient's mother died in 1856, during an hysterical attack; she was mentally unbalanced. According to her husband she acted most extravagantly at times. An uncle is an inmate of the asylum Niort. A twin brother is healthy. Another brother, however, died an idiot, at the age of sixteen. Two sisters are healthy. All his brothers and sisters have had convulsions up to the age of seven.

The patient was nervous when a child, and learned with difficulty at school. At the age of nine he had typhoid fever. Since that time his convulsive attacks make their appearance monthly; he suddenly falls down, loses consciousness, micturates and exudes a bloody foam at the mouth. In 1871, B. mixed into the affairs of the Commune, and lost his right arm from a gunshot. In 1890 the woman with whom he had lived fifteen years died. B. was much affected by this, and made two attempts at suicide in 1891. Meanwhile, he began to drink absinthe; these excesses made the occurrence of the attacks more frequent. He entered for treatment into the wards of MM. Cornil, Gaillard and Roques.

At this time, besides the convulsive neurosis, a series of syn-



droms of a different nature developed. In March, 1891, while he was on the Boulevard Sébastopol, an idea struck him to steal a melon he noticed outside a store. His means enabled him to buy whatever he desired, and he did not like melons; but he felt irresistibly impelled to steal this one. He waited for the clerk to turn his back, so as to be able to take the coveted object without being seen. "It was stronger than my will" (*plus fort que moi*), he said. "I felt impelled to steal that melon, none other than were lying on the stand; another could not have satisfied me." He struggled against this idea, and finally mastered himself and hurriedly got into an omnibus that was passing by, hoping thus to escape the impulse. And indeed, as he rode farther away from the grocery store he felt calmer, more composed and very happy not to have stolen,—to have escaped this morbid temptation. In April, 1891, another impulse occurred. He was in his room, at a window which looked out on the cemetery Père Lachaise and suddenly felt impelled to go down and take a wreath which was lying upon one tomb and to put it upon another. "I had no motive in accomplishing this act, but that desire was stronger than my will," he says. He went down the stairs, entered the cemetery, hurriedly approaching the tomb, and waited for the watchman to leave so as not to be surprised by him. During this waiting B. experienced a feeling of extreme anguish; but no sooner had he satisfied his impulse,—no sooner had he placed the wreath upon the other tomb,—than he felt physically relieved. Nevertheless, although satisfied with his act, he went in search of the watchman and told him what had happened. A short time after this, B. stole a ham. The act was accompanied by the same phenomena of anxiety.

But B. was an epileptic as well as a degenerate; thus, the clinical manifestation of both maladies coexisted, intimately interlaced. (1)

Between 1892 and 1893 B. committed some unconscious acts, after epileptic attacks, of which he has absolutely no recollection. Thus, B. one day brought to a friend a valise, which he had taken from his employer; the valise was not yet finished, having neither lock nor straps. In September, 1894, his sister locked him in alone in his room after he had an attack, and still remained stuporous; he jumped out through the window, and running up to a child standing on the sidewalk, threw himself at it and bit it on the arm. The delirious spell once over, this act remained entirely unremembered by him.

On December 27, 1894, B. bit a child, but this time it was by im-

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(1) Magnan. *Leçons cliniques sur les maladies mentales*, 1897. Chapitre sur les névroses.



pulse, with full consciousness and complete recollection. While on the street near a group of children, he felt impelled to bite one of them; wishing to resist this impulse he went to bed; but unable to struggle any longer, he arose, approached a police officer, and asked to be arrested; the officer refused to arrest a man who had committed no misdeed.

But some time later, B. threw himself upon this same child and bit it on the arm. Only then was he arrested and conducted to the Préfecture de Police, whence he was transferred to the Admission Bureau Sainte-Anne. A few days after his admission, on seeing a child in the wards, he felt impelled to bite it; but he ran away hastily and hid himself in the kitchen.

Transferred to Ville Evard, he left there March 9, 1897. He began to drink, and soon suffered from nightmares, morning vomiting, cramps in the limbs and visual hallucinations—men were falling from roofs, etc.

At that time the syndroms became accentuated by reason of the alcoholic excess. (1) In March, 1897, on noticing his sister's watch, he felt impelled to steal it and flee. He succeeded in resisting, however; but at night he saw himself followed by officers who wished to arrest him. The next day the impulse reappeared, and he asked his sister to hide the watch from view. July 5, 1897, after having indulged in alcohol considerably, he imagined that his sister wished to lock him in a vault at Père Lachaise. "I ran away from everywhere," he says, and he finally deposited a complaint at the Commissariat of Police. He still saw his sister with all her workmen, who were intent on putting him in the vault.

In the presence of these facts so multiple, so mobile, what treatment must one institute?

Before entering into therapeutic considerations it is important to draw the substance furnished us by clinical information. From the cases cited, it is evident that one should distinguish those whose mental degeneracy manifests itself by obsessional and impulsive phenomena from those in whom there is added to the latter some delirium (melancholic, alcoholic, or a neurosis,—epilepsy, for instance).

It is self-evident that in the latter cases one should treat, besides the obsessions, the added neurosis or psychosis, as they intensify the impulsive syndroms by the disturbance caused to the nervous system.

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(1) Magnan. *Recherches sur les centres nerveux*, 2e Série, 1896. Influence de l'alcoolisme sur les maladies mentales.

What means should, then, be used?

Should the patient be treated in an asylum or at home? Without regard to the pecuniary condition, every syndromic should be taken away from his home, even where the nature of the impulse does not urgently necessitate instant isolation. This seems evident from what we know to be the primordial condition of these morbid manifestations.

It must be borne in mind that the obsessional patients are degenerates in whom the brain is vitiated, primarily or secondarily, and that it cannot resist external excitations. The obsession sets in while the patient leads a usual life, surrounded by his people; it reappears through the excitation of old memories or perceptions furnished by the external world. It seems, then, that there is a fundamental indication for freeing the patient from his surroundings. Under such conditions only, as seen in case III., for instance, is the impulse not sharpened by the sight of objects and persons who bring it about; the patient is enabled to master himself, the periods of anxiety or depression become less frequent in appearance, the unfortunate obsessional patient gathers more confidence in himself and has more hope in the future. This is the first step towards recovery—an essential and determined step. Isolation, of course, includes psychic support with moral treatment at the hands of a competent physician. The mental basis of the obsessional patients is, as Dr. Magnan has pointed out, instability and an unbalanced equilibrium. Hence, if we leave them to themselves, treating them at home, if we advise distractions and traveling, what happens? The constant changes and the accompanying fatigue will only add to the already existing nervous irritability; so far from protecting the patient from causes which bring back the obsession, he seems rather to be continually excited thereby.

Does isolation alone suffice? Sometimes yes; often no. For, when the patient decides finally to submit to treatment he is then exhausted from the prolonged struggle, his nervous system is overworked and for this very reason most irritable. These are so many indications for consideration when fixing on the many therapeutic means: general tonics, massage, shower baths, or bromides, and when the irritability is marked, alkaline bromides and baths. At the same time, the bed treatment must not be lost sight of; it is an established fact that this treatment is one of the best sedatives for the nervous system.<sup>(1)</sup>

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(1) Read before the Medico-psychological Society, Paris. Published in the proceedings of the Society.

# THE JOURNAL OF MENTAL PATHOLOGY.

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Edited by LOUISE G. ROBINOVITCH, B. ÈS L., M.D.

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Original researches and other MSS. will be carefully considered, and if found unsuitable will be returned, if accompanied by stamped, self-addressed envelope. News items from Institutions will be given all space available.

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It is understood, from an authoritative source, that the Psychopathic Institute is to be reopened some time about next April. It is to be hoped that this attempt at furthering the advance of psychiatric study will meet with more success than did the previous one under another Commissioner in Lunacy.

The subject of insanity will never be understood properly unless the students in alienism are afforded every opportunity as well as every facility for clinical and laboratory investigation of the material handled in asylums. Alienists and students in insanity should be encouraged by the authorities in the pursuit of the difficult study of psychiatry.

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Some two years ago an Irish commission of distinguished gentlemen was sent out to investigate the asylum system for the insane and came to the Sainte-Anne asylum, Paris. The bed-treatment had then been in operation some time and the results had been so satisfactory that the single rooms which had formerly been employed for the isolation of violent patients had fallen into disuse. Dr. Magnan took much pride in showing the gentlemen the various padded cells, explaining the elaborate devices of gratings in the doors and the intricate locks, especially the one in a

cell on the ground floor, which had been resorted to for isolating the most unmanageable cases—stating that all these contrivances had become useless, as rest in bed was the superior method. After the inspection of the formidable-looking exterior of the cell, he ordered the attendant to unlock the room and allow the commission to inspect the interior. As the door was opened, and the commission entered the room, a fine young rooster beat a hasty retreat towards the opposite door, flapped its wings and uttered a lusty crow, its feathery form reflecting in the shiny parquet floor. The attendant, mortified at such a breach of institution etiquette, hastened to explain:

"Doctor, the zoophilic, Mme. X., whom you allow so many privileges, insisted on housing her pet rooster in this room, saying that it was a holier duty to house her dear pet there than to tenant it with some violent woman."

What are we doing with our "isolation cells" in the asylums of the United States?

#### A NEW RUSSIAN JOURNAL OF PSYCHIATRY.—

The followers and admirers of the late Professor KORSAKOFF have founded a journal to commemorate his life and works. The journal is published under the auspices of the Moscow Society of Neurologists and Psychiatrists. Prof. Kogevnikov is the president, and the following are the editors: Prof. Rott, Drs. Kornilov, Minor, Rossolimo, Serbski and Soukhanoff.

**SCHOOL FOR THE INSANE.**—*Dr. Francis Marion Hamilton*, who died at the Willard State Hospital, N. Y., March 11, 1900, left a valuable paper, the subject of which is hinted at in the above heading. The doctor spent the last few years of his life in the capacity of director of the school for patients in the above hospital. While traveling abroad he first conceived the idea of the value of such a school at the Salpetriere and the Bicetre Asylums. In the former, Dr. Falret took personal interest and devoted whatever spare time he had to teaching the patients, while at Bicetre, Dr. Seguin's efforts in the direction of instructing the imbeciles and idiots attracted Dr. Hamilton's attention. On returning home, the late author did what he could towards establishing and directing such a school for his own patients. The results of the method of diverting the patient's mind by pleasant and unfatiguing literary charts and musical entertainments were found to be most satisfactory. It is claimed that even the apparently hopelessly self-concentrated melancholics could be induced to forget their personal misfortunes, to stop listening to their hallucinatory voices, and to interest themselves in whatever was going on at the school. The great benefit is derived from the possibility of making the patient concentrate his attention on normal things. A striking example of improvement by this treatment is cited. (*The American Journal of Insanity*, July, 1901.)

**DI UNA SINGOLARE IPERTERMIA ED ALTRE STIMATE DEGENERATIVE IN CASO DI EPILESSIC ET PAZZIA MORALE** (Singular Hyperthermia and Other Degenerative Stigmata in a Case of Epilepsy and Moral Insanity).—DR MARCO TREVES reports this case, giving the history of a thorough clinical study. The patient had a highly charged degenerate heredity: father alcoholic, mother born prematurely. The patient is an epileptic and suffers from spells of dipsomania, and shows symptoms of moral insanity. The prevalent somatic stigmata are: Affective anæsthesia, sexual anæsthesia and absence of the sense of modesty; congenital thermic hypo-æsthesia and a singularly constant temperature above the normal, being always from 38 to 38.3 and 38.5 degrees Cent. In connection with this there is a morbid appetite for large quantities of alcohol and for eating salt. (*Archivio di Psichiatria, Scienze Penali ed Antropologia criminale, Vol. XXII, fasc. III*).

**ON THE CEREBRAL CHANGES DURING NATURAL SLEEP.**—DR. NARBOUT experimented on four animals in good health. Two were subjected to trephining during sleep and two during the waking period. The cerebral cortex thus obtained was treated by Golgi's method, and examined under the microscope. The conclusions are: The rough surface of the dendrites of the small and large pyramidal cells during sleep depends on the presence of carbonic acid gas; the dendrites assume their usual length and unite with one another as the flow of oxygen increases; the waking from sleep takes place when complete contact of the dendrites end; the smoothness of the dendrites is characteristic of the wakeful state; coarse varicosity of the dendrites is indicative of degenerative atrophy. (*Obozrenië psichiatriti, etc., No. 1, 1901; in Journal Korsakova, No. 3, 1901.*)

**ON THE SIGNIFICANCE OF THE APPEARANCE OF VARICOSE THICKENING OF THE PROTOPLASMIC BRANCHES OF THE CORTICAL MOTOR CELLS.**—DR. IVANOFF made some eighty experiments on dogs, cats, and rabbits. The cortex of the motor areas was examined during the wakeful and anæsthetized conditions. Golgi's method was used, with Kolossov's modification; the methyl-blue stain was used as a control method. It appeared that the dendrites presented a knotty aspect where the staining fluid could not penetrate properly. The work of thus staining the cerebral tissue is also imperfect because the Golgi fluid consists of elements with individual diffusion properties. The author also found unsatisfactory the staining process *in vivo*. The same reason of uneven impregnation is given.

Finally a third method was resorted to. The animal was killed by acute hemorrhage and the vessels were injected with a normal saline solution. This was followed by an injection of the Golgi solution. The results from this method were good in proportion to the success of the injection. The conclusions are that the dendritic branches are part of the dendrites; moniliform swellings of the dendrites are significant of destructive changes depending on the Golgi method or post-mortem changes. It is possible that those moniliform changes also take place during life by reason of acute or chronic disease. The Golgi method interferes with the finding of an explanation of the time of appearance and cause of destructive processes. (*Journal S. S. Korsakova*, No. 3, 1901, from *Voprosi Nervno-psychicheskoi medicini*, No. 1, 1901.)

**LA CRIMINALITE JUVENILE. ETIOLOGIE DU MEURTRE.**—DR. PAUL GARNIER is one of the best authorities on this question to-day. In his professional capacity he is called on to examine every juvenile criminal who either falls into the hands of the police or comes directly under the alienist's care. This document, embracing an analysis of all the juvenile cases in Paris, extends over a period of years from 1888 to 1900. One of the tables dealing with juvenile murderers shows that the crime of murder is seven times greater to-day than it was in 1888. Speaking of parental alcoholism as a cause of criminal offspring, the author calls attention to the fact that although the adage "l'ivrogne n'engendre rien qui vaille" is true to a vast extent, it is yet necessary to consider carefully whether the criminal-born, so-called, is a clinical reality. The offspring of the alcoholic is a degenerate being and lends itself easily to any display of the inherited psychic anomalies. Surroundings and lack of education are generally the determining agents of the future psychic life of such beings. In concluding his paper the author says:

Statistics prove that juvenile criminality outgrows the adult in an enormous progression.

Murder is six times more extensive to-day among the juveniles than among the adults. The age for the juvenile is that between 16 and 20, while the adult is counted among those between the ages of from 21 to 35.

The rapidly increasing juvenile criminality seems to be in direct relation with the progress of alcoholism.

The adolescent criminal is generally an alcoholic himself, perverted by nature as well as by companionship; he is imperfect morally and intellectually; but he cannot be pointed out as such clinically before his degenerate tendencies have become accentuated.



It is best, perhaps, not to adhere to the doctrine of absolute determinism in the matter of the criminal-born, so-called; regardless of his morbid heritage; one should have faith in the education of these subjects.

The study of the etiology of crime leads one to the thought of the necessity of social hygiene: measures against the propagation of alcoholism, disfranchisement of the drunkard and individual initiative for the betterment of morality. Education is one of the powerful factors in this case.

As for actual treatment of the juvenile criminal in existence, special asylums should be built for them. (Fifth International Congress of Criminal Anthropology, Amsterdam, 1901.)

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**SUR LA FOLIE GEMELLAIRE (ON INSANITY OF TWINS.)**—DR. SOUKHANOFF reports a case of this kind. There are only twenty-one cases on record, as stated by Antonio Marro. The author's twin cases are those of well educated brothers, the members of whose family suffered from insanity. The form of insanity in these brothers was precocious dementia. These cases and those of Moreau seem to be the only typical ones. The rôle of heredity is only more striking when one considers cases such as those cited above. (*Annales Medico-psychologiques*, September, 1900).

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**ON SUPRARENAL EXTRACT IN THE TREATMENT OF MENTAL DISEASES.**—DR. W. R. DAWSON gives the following conclusions of his clinical experiments with the supra-renal extract: The chief physiological action of extracts of the supra-renal gland is increase of arterial pressure, but they produce a tonic effect on the heart, and on muscle generally, and possibly some diminution of metabolism.

Intra-venous injections of the supra-renal extract are transitory in their effect and the remedy must be given by the mouth when prolonged action is desired. Digestion is not impaired by moderate doses.

As the remedy increases the blood-pressure, it seems to give most satisfactory results in cases where the blood-pressure is low, as in mania, etc.

Where mental excitement is marked, the extract must be administered for some length of time in order to obtain some results.

High blood-pressure does not contra-indicate the use of the extract when that pressure is not dependent on the mental state treated; an abnormally high pressure may yet be lower than the average of an individual case.

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Suprarenal extract seems unlikely to be of benefit in cases of melancholia and where there is much stupor.

It seems that the form of insanity in which it will be found most useful is acute mania of fairly recent origin uncomplicated by stupor.

These conclusions are merely tentative. (*Journal of Mental Science*. October, 1901.)

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**A CASE OF ACUTE HEMORRHAGIC ENCEPHALITIS WITH OPTIC APHASIA.**—DR. BROUKHANSKY reports this case. The patient was 27 years old and there was no psychopathic history. The onset of the disease was sudden, and although recovery took place, leaving the patient with an altered mentality, there can be no doubt of the correctness of the diagnosis. The remarkable trait in this case is that the patient suffered from optic aphasia; she could not name the simplest objects shown her; when the other senses were made to intervene, however, with the exception of the sense of touch, she could name the objects without difficulty. Thus, she could not name an animal when it was shown her, but she had no difficulty in naming it when a verbal description of it was given. In order to establish the certainty of a psychic disturbance in this case, a careful ophthalmoscopic examination was made of both eyes. According to Freund, when there is a solution of communication between the optic and psycho-motor spheres, the other sensory spheres come into active play, pre-eminently the tactile sphere, transmitting its impressions to the centre of speech. When the tactile centre is impaired, the other centres are called on for aid. According to Forster, and others, the perception of objects may be either simple or complex; simple when the perception can be accomplished without the intervention of the optic function, and complex when the latter is necessary for the formation of a true perception. In the first case, there is a direct way of communication, the tactilo-psycho-verbal, and in the second an indirect way, tactilo-optic-verbo-motor. In the case of the perception of heat or cold, the first, the simple way of communication, is in operation, no doubt. The second, the complex way of perception, is applied where the optic perception is a necessary element. When there is a solution of communication between the optic and tactile spheres, the perception of the complex alone suffers. Although apparently differing from the theories of Bruns and Freund, the above theory warrants the conclusion that every subject suffering from optic aphasia suffers from tactile aphasia at the same time: Where the tactile perception cannot come to aid in an optic aphasia, the tactile sphere is impaired, either in the

communicating tracts or in its centre. This seems to agree with the clinical fact that a purely optic aphasia is a very rare occurrence. All cases on record, with the exception of one by Freund and two by Moëli, show that they were of the double variety: optic and tactile at the same time. Where the tactile perception is impaired partially only, the optic-verbal-motor tracts are only slightly impaired. (*Journal S. S. Korsakova*, No. 3, 1901.)

**EXPERIMENTAL AND CLINICAL RESEARCHES ON HEDONAL.** — DRS. ROUBINOVITCH and PHILIPPET state that hedonal is chemically a methylpropylurethane; it is a white powder, bitter to the taste, with a slight taste and odor of mint. It is easily soluble in alcohol. The conclusions as to its action are as follows: Soon after absorption it causes hyperthermia of from 2 to 5 tenths of a degree (C.). After a stationary period of this, follows one of hypothermia of from 2 to 3 tenths of a degree. Chloral, to which this drug is compared, also lowers the temperature, but either immediately after the absorption of the drug or on waking from the sleep it induced. As compared to chloral, hedonal has a slight action on the respiration and the blood pressure; to diminish either it is necessary to use ten times as large doses of the new hypnotic than those of chloral. The fatal dose per animal kilog is 5 grains of hedonal; it augments the quantity of urea excreted. As a hypnotic it acts within from 1 and 1½ to 2 hours. The sleep lasts about 4 hours, at the most, when the drug is given in doses of from 15 to 30 grains; it leaves no after effects. The soporific effect of hedonal is more efficacious in cases free from mental elements; in the experiments, a case of acute rheumatism, tuberculosis, chorea, and one of tabes, profited by the hypnotic action of the drug, while patients affected with mental disturbances, such as chronic delirium, hypochondria, melancholia and circular insanity, derived no benefit from the drug in obtaining sleep from its action. One case of hysterical delirium did obtain sleep from its action.

On the whole, hedonal is an inoffensive hypnotic; in the same dose it is less effective than either chloral or sulfonal. (*Journal de Neurologie*, Sept. 5, 1901.)

According to Dr. Habercant, the action of hedonal is prompt even in cases of marked excitement, provided the dose is sufficient, from 30 to 60 grains. A feature in the action of this drug is polyuria, which it produces; the increased flow does not disturb the sleep. (Cited in the *Journal of Mental Science*, October, 1901.)

**THE BRAIN LOCALIZATION.** — M. DIEULAFOY presents an interesting study of a case of Jacksonian epilepsy due to

a syphilitic goma not of the Rolandic, but of the frontal zone. This upsets seriously the theory of motor cerebral localization. Lepine, Chipault, Faguet and Lowitz have reported analogous cases. M. Dieulafoy concludes that until there is further evidence to the contrary, one must admit the existence of Rolandic and frontal Jacksonian epilepsy absolutely comparable. He said that although Jacksonian epilepsy of Rolandic origin is the more frequent in occurrence than is the frontal, the latter is nevertheless not rare, as is proven by the cited cases. At present there is no sign by which the Rolandic Jacksonian epilepsy can be distinguished from the frontal; this, one must admit, is a direct attack on the doctrine of cerebral localization. From a surgical standpoint, this is most important, as it becomes a serious matter in the case of the necessity or trephining: considering the clinical facts we are apt to indicate the wrong cranial spot where the trephine should be applied, as is seen from the instructive cases of the above authors. The syphilitic goma found at the autopsy was of long standing; the lesion was tolerated a long while and caused disturbances only towards the end of life. It is difficult to explain why lesions are tolerated in some regions during a long period of time. M. Laborde remarks that the localization theory seemed to lose ground on account of other evidences than clinical ones only; that the projection fibres from the cortex to the medulla parting, not only from the Rolandic, but also from the frontal region, again suggest a derogatory argument against the doctrine of localization. It is well known that excitation of the frontal convolutions can produce motor phenomena, although the function of this region is purely psychic. M. Lancereau remarks that it is known that tumors of the cerebral periphery generally cause epileptiform convulsions, whereas those situated in the depth of the cerebrum do not provoke any motor disturbances of this nature. (*Progres Med.*, Nov. 2, 1901.)

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#### THE EVOLUTION OF THE COLOR SENSE. — DR.

F. W. E. GREEN thinks that there are special cerebral cells for the perception of light and color, respectively. In one of his cases, a man, the patient was color blind in one eye only, and it was possible to observe the truth of the above statement; the patient could see better with the color-blind eye. The spectrum appeared nearly all gray, but with a tinge of red at one end and of violet at the other. The author concludes that psycho-physical color-blindness is an example of a previous state in the development of the color-perceiving centre. (*The Journal of Mental Science*, October, 1901.)

**THE THEORY OF SLEEP.**—M. FLEURY suggests that sleep is not necessarily due to a condition of fatigue. A marked expenditure of energy does not always bring about a desire for sleep; it may, on the contrary, cause insomnia, as is seen in cases of debilitating diseases. In subjects with good reaction, the need for sleep seems to come about after excessive mechanical overwork. (*Progres Med.*, Nov. 2, 1901.,

## BOOK REVIEWS.

**LA PUBERTE CHEZ L'HOMME ET CHEZ LA FEMME.**—ANTOINE MARRO. Etudes dans ses rapports avec l'anthropologie, la psychiatrie, la pedagogie et la sociologie. Translated by Dr. MEDICI, under the direction of DR. A. MARIE. Preface by DR. V. MAGNAN. Four tables and 4 figures in the text. *Schleicher Frères*, Paris, 1901. The interesting question of adolescence is considered under all its forms and varieties. The subject at puberty is considered in his relation to his parents, his family and society. A detailed study is made of the anthropological changes which mark the period of puberty and physiological data are given to show the necessity and importance of guiding and watching the growing man and woman. Until the period of puberty the child leads a life of a parasite, depending on its parents. With the manifestation of the physio-biological phenomena which characterize puberty, the adolescent manifests corresponding evidences of physical and moral strength, which are necessary qualities of independent youth. The adolescent man is noted for impetuosity and corresponding sexual manifestations, while the growing girl, on the contrary, becomes more timid and more modest.

This period of life is a critical one in those morbidly predisposed. Insanity in all its forms characteristic of this period of life, as well as neuroses and criminality, are apt to manifest themselves. Most valuable statistical data are cited, and every student of psychiatry will find an inexhaustible source of information in these data. Professor Marro is well known to the psychiatric world, and the value of his information cannot be over-estimated. His long experience with the insane, the criminal and the abnormal in the asylums, prisons and in private practice, enables him to speak authoritatively on the difficult subject he has chosen.

The students of the Ste. Anne School who read this excellent volume will regret that a certain group of morbid psychic symptoms should be considered here as a special morbid entity. The Germans term this group of symptoms *hebephrenia*.

In the chapters on the sociological relation of the growing man and woman, in the normal and pathological states, on the prophylactic measures to be used, advantageously, and on the influence of the economic and consequently social position of woman on the growth of morality, the author shows that he has a depth of knowledge and erudition that is quite enviable.

This translation is made from the second Italian edition, and contains 536 pages.

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**DES SERUMS ARTIFICIELS DANS LES TRAITEMENTS DES MALADIES MENTALES.**—Par DOCTEUR JEAN-BAPTISTE BUVAT, interne des asiles de la Seine, mention honorable de la Société Medico-Psychologique, Prix Esquirol, 1901. *L. Boyer*, Paris. The author considers the history of the development of the serum treatment, and proves its efficacy by the results of a series of physiological and clinical studies. The serums used were: the chloride, 7.5 per cent.; the bromide, 6 per cent., and the iodide, 2 per cent. All of these solutions have common properties; they stimulate all the physiological functions and free the organism of poisonous products by stimulating all the secretory eliminations; under the influence of these serums the general condition of the patient improves rapidly. The treatment was applied in cases of infectious toxic psychoses, melancholiacs, general paralytics, epileptics and in one case of delirium of persecution. This treatment should not be applied to the exclusion of all others. The author used and recommends large doses,—500 c. c., at the least; this dose should be repeated every day or every 3 or 5 days, according to the effect produced. The essential element in this treatment is the cleansing of the blood; this should be done "larga manu," and without fear. The gratifying results are: A speedy and progressive increase of the body weight, the disappearance of sitiophobia, fecal incontinence and bed sores. These physical improvements lead to the amelioration of the psychic disturbances in auto-intoxications.

The chloride serum is advantageous in the treatment of the toxic-infectious psychoses of acute form expressed by maniacal excitement, melancholic depression or mental confusion. In the depressive forms with cardiac asthenia, it is well to add 15 grs. of caffeine to the litre of serum. Even when the patient enters into the chronic state, there is a marked improvement in the general condition.

The bromide serum has sedative qualities, and is used to advantage in cases of melancholia with anxious depression, in maniacal excitement of intermittent insanity and in some senile cases.



In epileptic cases the bromide serum gives far better results than does the ordinary medication through the digestive organs; the acne eruption is absent and the patient's general condition is gratifying. In a case of violent agitation during the course of delirium of persecution, the patient was calmed with this treatment.

The iodide serum has anti-sclerotic qualities, and is used to advantage in the syphilitic insane in general and in the syphilitic general paralytic in particular. The depression of the paralytic responds most readily to the treatment.

The essential point in the technique of making the injections consists in the observance of absolute antisepsis. The injection is intramuscular and should be made in the retro-trochanteric region.

The contra indications are in cases of somatic enfeeblement.

**LA PHILOSOPHIE RUSSE CONTEMPORAINE.**—Par OSSIP-LOURIE, Docteur de l'Université de Paris, Membre de la société de philosophie de l'Université de Saint-Petersbourg. *Felix Alcan*, Paris, 1902. Following the publication of *PHILOSOPHIE DE TOLSTOI* this volume may be considered as a natural literary sequence to the study of the Russian intellectual development which seems to be a favorite subject with this author. The Russian student of science in all its branches is well known to the learned professions the world over; the sincerity and erudition of the Russian scientist is too familiar to us all to need any commendation. This volume is rather a popular exposé of the evolution of science in Russia. Philosophy, psychology, sociology and other sciences are touched on in terms suitable for popular reading. The volume contains 278 pages.

**LA PSYCHOLOGIE DU REVE. VASCHIDE AND PIERON.** *J. B. Baillière*, Paris. Science of the day searches for simplicity of explanation in all things. The authors have made an interesting study of dreams from a psychological and pathological point of view, clinically and otherwise; the recorded dreams of ancient and recent personages are cited to a large extent in proof of the fact that dreams are often dependent on the psychic or pathological subjective conditions; and that the clinician should therefore pay more attention to this source of clinical guide; it is a valuable aid in making a timely diagnosis of organic diseases, where a tardy diagnosis means a fatal end for the patient. In the neuroses and psychoses there is much to be learned from the character of dreams which precede certain clinical manifestations. The volume has 96 pages.

**THE PHYSICIAN'S VISITING LIST** for 1902, 51st year of its publication. *P. Blakiston's Sons & Co., Phila.* This is a useful memorandum book with a list of doses of various medicines and tables for converting weights and measures of the French system into English units and vice versa.

**ERRATUM.—PSYCHO - MOTOR HALLUCINATIONS IN GENERAL PARALYSIS.** By Dr. A. Marie. In Vol. I., No. 1, should read by Drs. A. Marie and J. B. Buvat. Omission by the authors in manuscript.

# The Journal of Mental Pathology

JUNE, 1901

EDITED BY LOUISE G. ROBINOVITCH, B. ÈS L., M.D.

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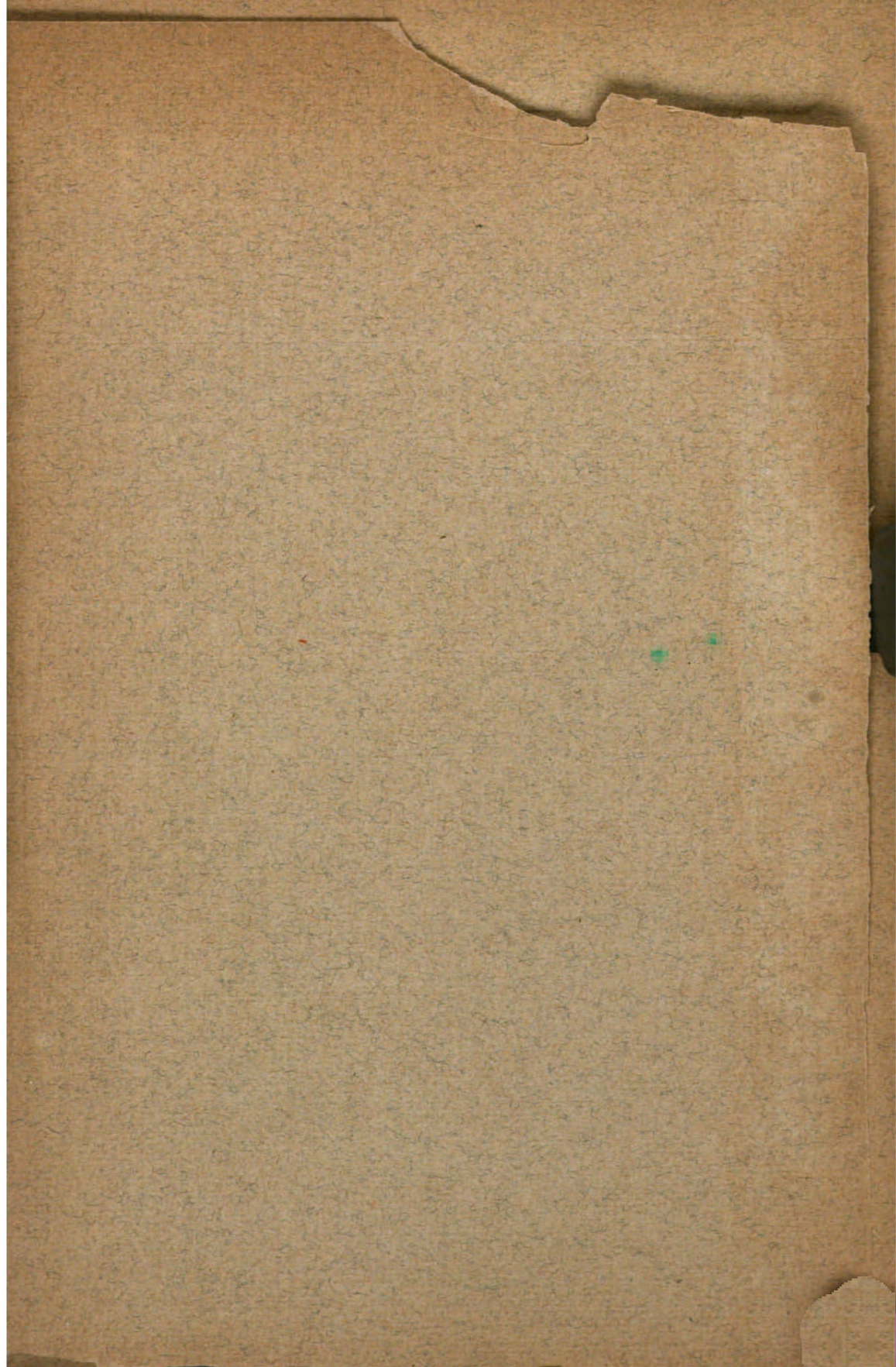
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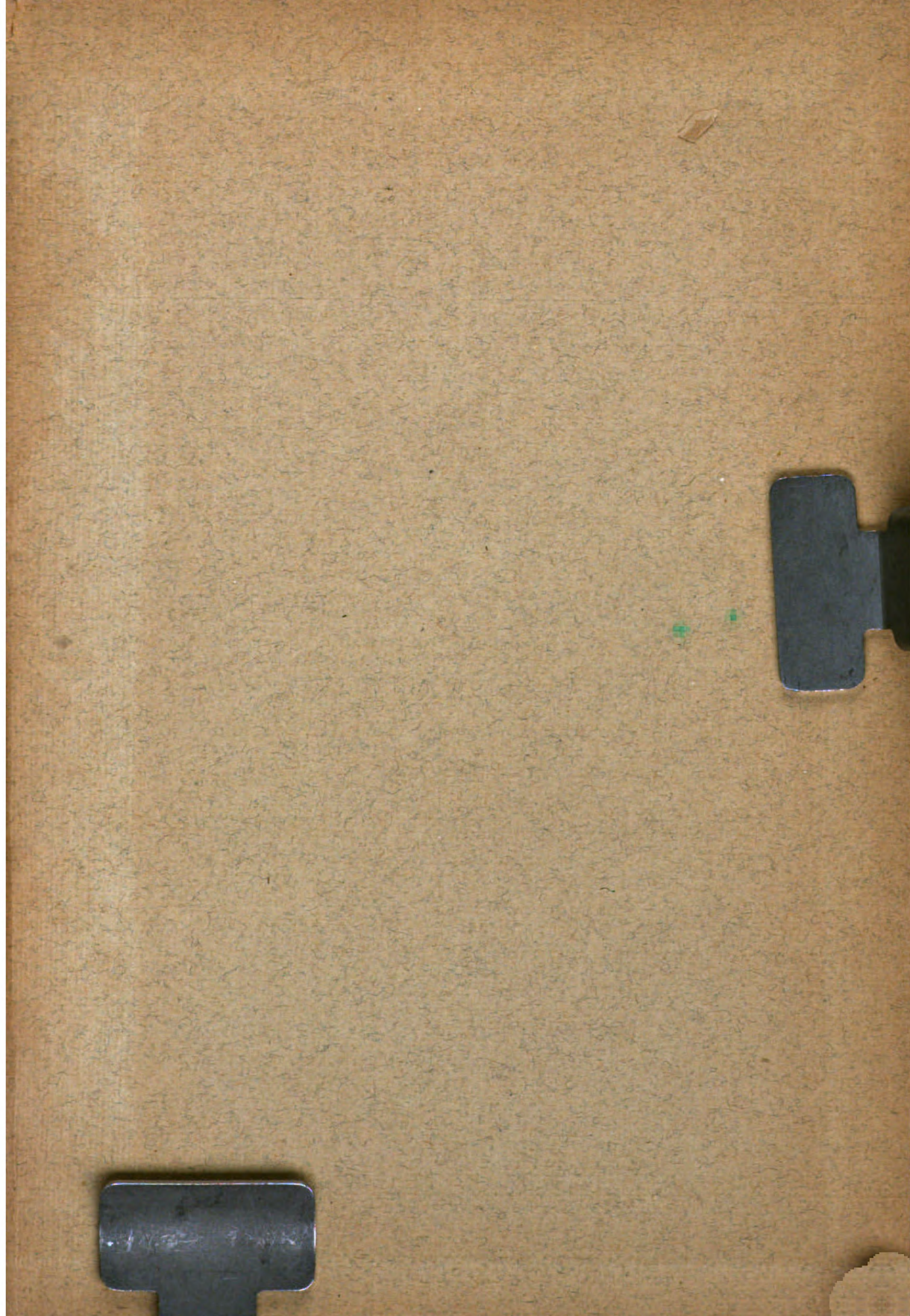
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